Module 7: Numbers Big and Small

de Two

Mathematics

Alberta
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Learning
Technologies
Branch

Grade Two Mathematics: Module 7

Numbers Big and Small

Alberta LEARNING

Learning Technologies Branch

Grade Two Mathematics
Module 7: Numbers Big and Small
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Teachers	✓	
Administrators		
Home Instructors	✓	
General Public		
Other		

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- Alberta Learning, **http://www.learning.gov.ab.ca**
- Learning Technologies Branch, **http://www.learning.gov.ab.ca/ltb**
- Learning Resources Centre, **http://www.lrc.learning.gov.ab.ca**

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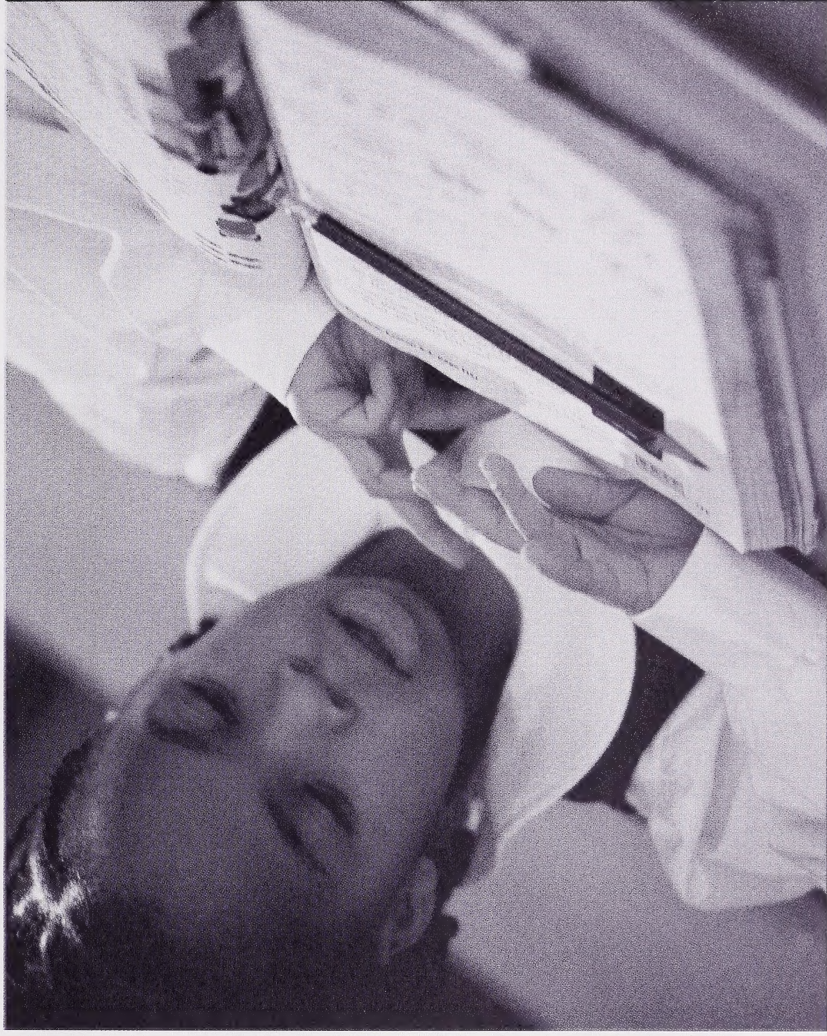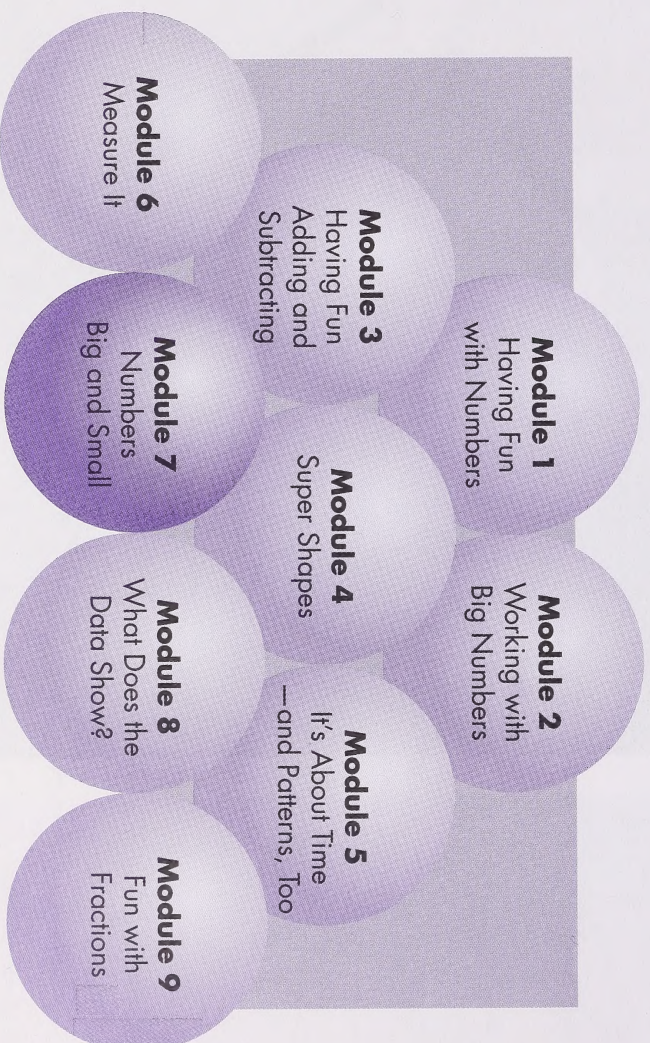
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Welcome
to Grade Two Mathematics

Have you ever shared a cookie with a friend? Did you try to break it evenly so that you each got the same amount of cookie? Have you tried to figure out how tall you are? Can you tell how much time you have to do something? How much does something weigh? In Grade Two Mathematics, you will learn how to do these activities.

Look at the picture on this page. It gives the titles of the Student Module Booklets you will be using. You are now using Module 7: Numbers Big and Small.

Module 1
Having Fun with Numbers

Module 2
Working with Big Numbers

Module 3
Having Fun Adding and Subtracting

Module 4
Super Shapes

Module 5
It's About Time —and Patterns, Too

Module 6
Measure It

Module 7
Numbers Big and Small

Module 8
What Does the Data Show?

Module 9
Fun with Fractions

Contents

Numbers Big and Small

Have you ever wondered how many chocolate chips are in a bag of cookies, or how many seeds are in a bag of bird seed? You may have thought there were hundreds of them—maybe even a thousand. You were probably right. Did you ever have to divide a bag of candy so that everyone gets the same number? Did you get a fair share?

In this module, you will be learning how to count objects up to one thousand. You will also learn how to make equal groups.

Day 1: Looking Back

It's time to review what you learned about time and patterns.

How many hours are there in a day? in two days? Do you remember? Does March come before or after April?

Can you copy this pattern using letters or actions?

◆◆◆■■◆◆◆◆■ ■
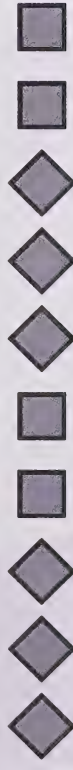
You will even solve some problems using your calculator. Put your thinking cap on and away you go!

Looking Back
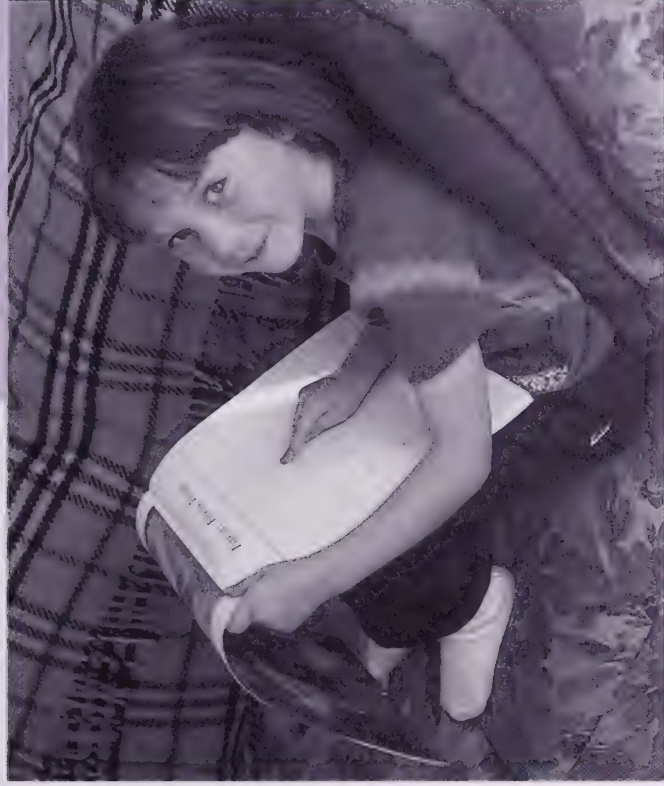
See how well you remember what you learned in Module 5.

1. Circle the unit of time you would use to measure these.

a.	the time it takes to brush your teeth	minutes	hours
b.	a camping trip	minutes	hours
c.	the time it takes to wash the dishes	minutes	hours
d.	a day	minutes	hours

2. How many minutes are in one hour?

3. How many hours are in one day?

Looking Back
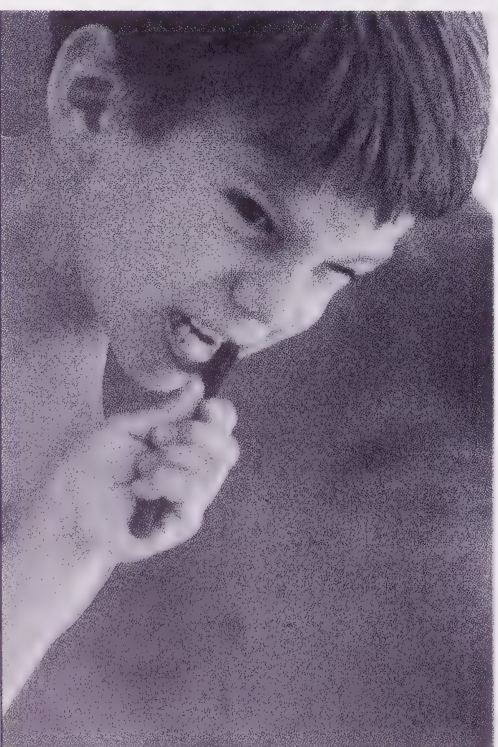
4. Circle the correct answer.

a. Elena watched a movie for 50 minutes. Is that more or less than one hour?	more	less
b. Sandra spent 102 minutes writing a report. Is that more or less than one hour?	more	less
c. Denis slept for 22 hours on the weekend. Is that more or less than one day?	more	less

5. Sonia spent three hours sewing a jacket. How many minutes did she spend on it?

Explain your answer.

_____

_____

_____

_____

6. John Paul went out on the trapline with his father for two days. How many hours was he away?

Explain your answer.

_____

_____

_____

7. Number the months in the correct order from 1 to 12.

May ◯	December ◯	November ◯	January ◯
April ◯	October ◯	August ◯	September ◯
June ◯	July ◯	March ◯	February ◯

8. Fill in the dates on the calendar. Then answer the questions.

December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2		

What is the day of the week for each of these dates? Look at the calendar and then print your answer on the line.

a. December 22 _____

b. December 13 _____

c. December 28 _____

d. December 6 _____

e. December 8 _____

f. December 19 _____

Looking Back

What is the date for each of these days?

g. the 2nd Monday _____   i. the 4th Wednesday _____

h. the 1st Saturday _____   j. the 3rd Friday _____

9. Answer the questions and explain how you got your answers.

a. How many months are there in two years and six months?

_____

_____

b. How many days are there in three weeks and two days?

_____

_____
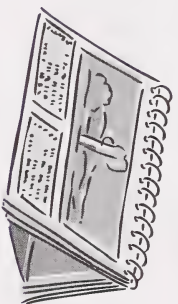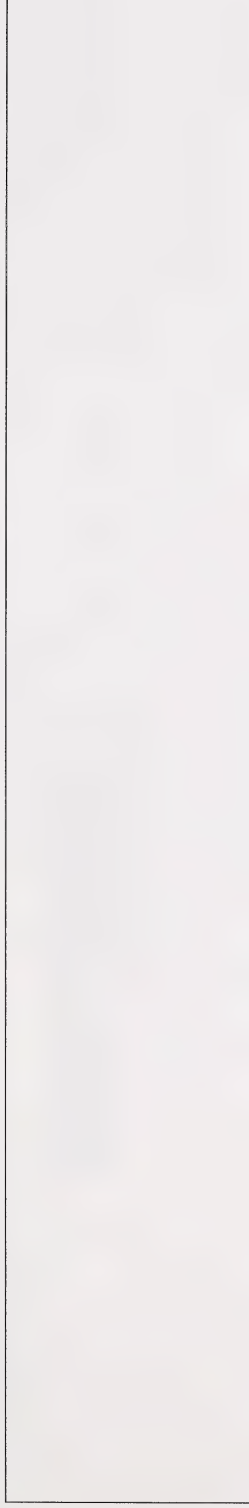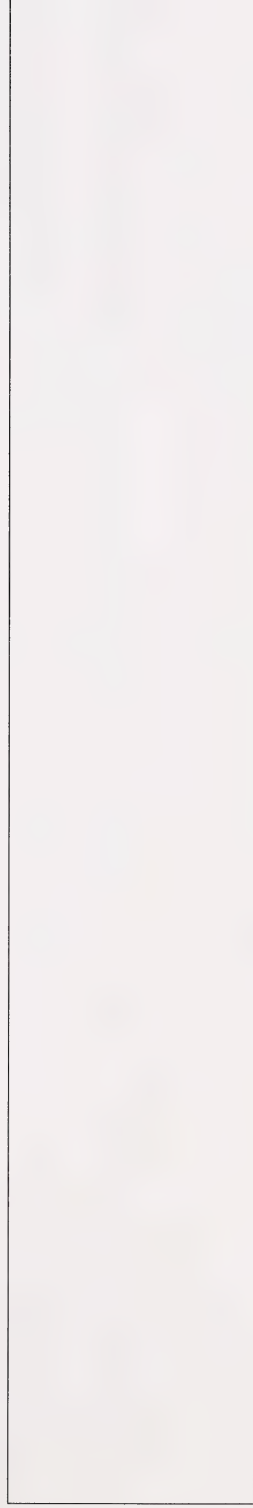
10. Look at the pattern. ▽▽▲▽▽▲▽▲

a. Describe the pattern. _____

_____

b. Draw your own pictures to show the same pattern.

c. Copy the pattern using sounds. Show what sounds you can use.

d. Copy the pattern using actions. Show or write what actions you can use.

11. a. Draw a picture to complete this pattern.

b. How would you describe the pattern with words? _____

_____

12. If $10 =$ ◯ and $1 =$ ☾ , show each of the following numbers as a pattern. The first one is done for you.

a. 17	c. 62
◯ ☾ ☾ ☾ ☾ ☾ ☾ ☾	
b. 83	d. 39

13. Circle the mistakes in the patterns. Then draw or print the correct pattern.

a. a b c D e f G H i j K L M n O P q r

_____

b. hop jump skip hop hop jump jump skip skip hop hop jump jump skip skip hop

_____

c. ☆ ▷ ☆ ☆ ▷ ▷ ☆ ▷ ▷ ▷ ☆ ▷ ▷ ▷ ▷ ☆ ▷ ▷ ▷ ▷ ▷ ☆ ▷ ▷ ▷ ▷ ▷ ▷ ☆ ▷ ▷ ▷ ▷ ▷ ▷ ▷

_____

14. Fill in the missing numbers.

a. _____, _____, 30, 35, 40, _____

b. 82, 80, 78, _____, _____, _____

c. _____, _____, 40, 50, 60, _____, _____

d. _____, _____, _____, 27, 30, 33

Looking Back

15. Study the patterns and print the rule in the space provided at the top of each chart.

a. **Rule:**

4	14
11	21
7	17

b. **Rule:**

18	10
9	1
11	3

c. **Rule:**

4	11
2	9
15	22

16. Mustafa bought four marbles each week. The first week he had 4, and the next week he had eight. The week after that he had twelve. How many marbles will Mustafa have in the fourth, fifth, and sixth week? Draw the appropriate number of marbles for weeks 4, 5, and 6.

Week 1   ○ ○ ○ ○

Week 2   ○ ○ ○ ○ ○ ○ ○ ○

Week 3   ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

Week 4

Week 5

Week 6

Mustafa will have [ ] marbles in the sixth week.

17. Use your calculator. Press these keys.

[+] [4] [=] [=] [=]

a. What will be the next five numbers to appear on the calculator screen?

[ ] , [ ] , [ ] , [ ] , [ ]

b. If you keep pressing [=], which of these numbers will appear? Circle them.

| 32 | 44 | 47 | 53 | 56 | 61 | 65 | 74 | 76 | 80 |
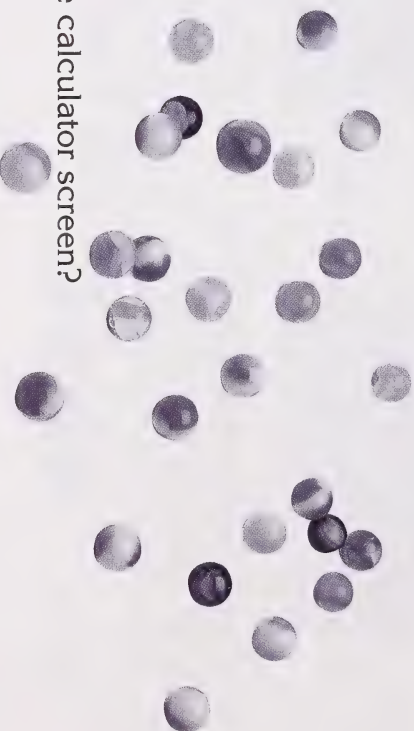
c. Why will the numbers you circled appear?

_____

_____

d. Print the keys you would press on the calculator if you wanted to skip count by threes up to fifteen.

( ) ( ) ( ) ( ) ( )

e. What are four numbers greater than 40 and fewer than 60 that you will see on your calculator screen if you skip counted by threes?

[ ] [ ] [ ] [ ]

f. What are four numbers between 50 and 70 you will not see on your calculator if you skip counted by threes?

[ ] [ ] [ ] [ ]

Day 2: It's as Easy as 1, 2, 3

Many children have collections of things they find interesting. Do you collect anything, such as rocks or hockey cards?

If you do, do you know how many you have altogether?

You will begin working with large numbers today. See if it's as easy as 1, 2, 3.

Day 2

Lesson 1

Jasper and Elena were in Prince Rupert, B.C., visiting their friend Abdul. Abdul showed Elena and Jasper his stamp collection. They were amazed at the number of interesting stamps he had. Jasper asked Abdul how many stamps he had. Abdul said he didn't know. Elena suggested they count his stamps to find out.

Elena, Jasper, and Abdul made piles of ten stamps in each pile. They knew that would make counting all those stamps easier. When they finished making ten piles with ten stamps in each pile, they stopped.

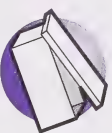How many stamps have they counted so far?
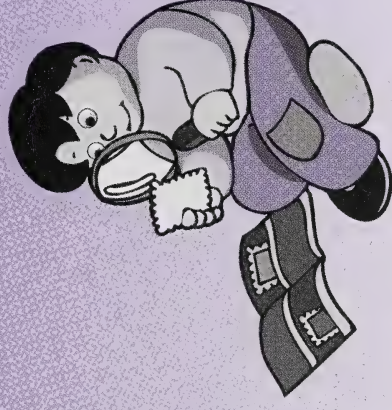
Guide the student to answer that Elena, Jasper, and Abdul are counting by 10s.

How do you know that? _____

Yes, they had counted 100 stamps so far. Elena, Jasper, and Abdul knew how to count to 100. They weren't so sure about the numbers after 100.

Lesson 2

Take your base ten rods and cubes out of your Math Box.

Arrange 10 cubes on your desk.
What is another way of showing 10?

Yes, you can show 10 with one rod. One rod equals 10.

How many rods make 100? [ ]

Yes, 10 rods make 100.

Look at the place-value charts, and print the numbers they show under them.

1.

Tens	Ones
7	3

[ ]

2.

Tens	Ones
4	1

[ ]

3.

Tens	Ones
1	8

[ ]

4.

Tens	Ones
8	6

[ ]

5.

Tens	Ones
3	9

[ ]

6.

Tens	Ones
5	4

[ ]
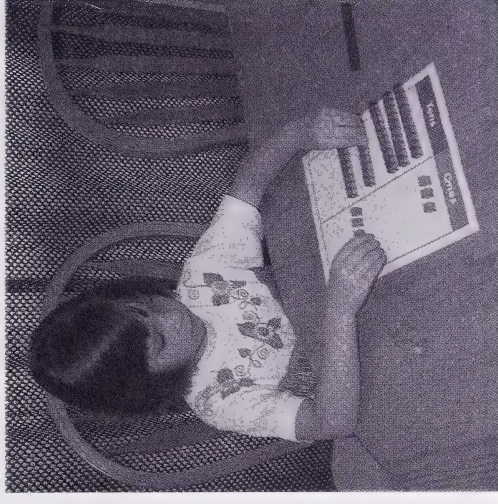
Place the rods and cubes on the place-value chart below to show these numbers:

| 61 | 14 | 99 | 37 | 52 |
| 46 | 28 | 3 | 75 | 80 |

Check that the student is placing the numbers correctly on the place-value chart, one at a time. For example, to show 61, the student would place 6 rods in the tens column and 1 cube in the ones column. Have the student remove the rods and cubes after each number.

Tens	Ones

Lesson 3

If you were asked to show 100 with your cubes, how many cubes would you have to count out?

[ ]

Yes, you would have to count out 100 cubes.

But you know a quicker way of showing 100. What is it?

Yes, you can show 100 with your rods.

Show 100 with your rods. Put the rods on your desk.

How many rods did you use?

[ ]
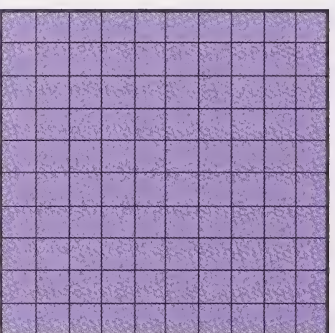
If you used 10 rods, you are right.

Did you know there is even an easier way of showing 100?

Place ten rods on your desk. Put them together into a square.

What number does the square show?

If you said 100, you are right. Ten rods put together make a hundreds flat. It's easier to use one flat to show one hundred than to have to put together ten rods to show one hundred.

Look at the hundreds flat.

What number does it show?

Right! The hundreds flat shows 100.

Show the student the base ten hundreds flat.

Day 2

It's as Easy as 1, 2, 3

This is how 100 looks on a place-value chart.

Hundreds	Tens	Ones
1	0	0

Look at the place-value chart. How many hundreds are there?

☐

There is one hundred.

How many tens are there?

☐

There are no tens.

How many ones are there?

☐

There are no ones.

There is a one in the hundreds place. There are no tens and no ones. That means the number is 100.

Look at this place value chart.

Hundreds	Tens	Ones
1	4	2

What number do you think this is?

If you said 142, you are right.

How many hundreds are there?

How many tens are there?

How many are ones are there?

There are 1 hundred, 4 tens, and 2 ones.

Day 2

It's as Easy as 1, 2, 3

Your home instructor will place rods and cubes next to the hundreds flat. Name the number of hundreds, tens, and ones for each. Print the number in the place-value chart. Say the number to your home instructor.

Put 3 rods and 7 cubes next to the hundreds flat. The student will say there is one hundred, three tens, and seven ones; then he or she will print 1 in the hundreds column, 3 in the tens column, and 7 in the ones column in the chart. Have the student do this for all the numbers: 119, 143, 151, 120, 196.

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Hundreds	Tens	Ones

Give the student 125 items of a manipulative, such as wooden craft sticks, beans, or whatever you have of that number. Ensure the student understands there are 12 groups of 10 with 5 left over.

Your home instructor just gave you a large number of items. Make as many groups of ten as you can.

How many groups of ten did you make?

The number is 125.

What is the total number of items?

How many items were left over?

Did you know that the number is 125?

Print the number on the place-value chart.
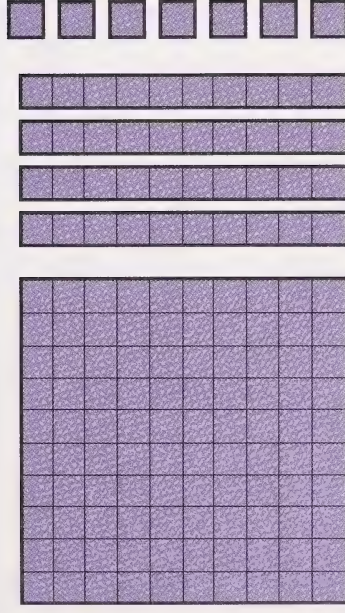
The student should print 1 in the hundreds column of the place-value chart, 2 in the tens column, and 5 in the ones column.

Hundreds	Tens	Ones

This drawing shows 125: 1 hundreds flat, 2 rods, and 5 cubes.
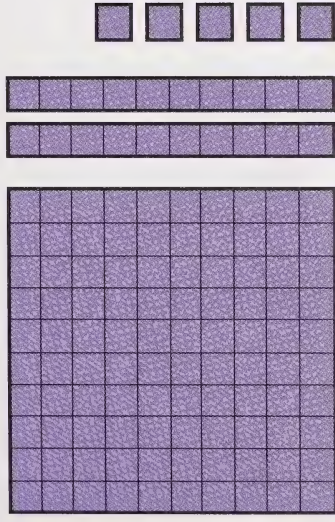
Look at the next drawing.

How many hundreds are there?

How many tens?

How many ones?

What number does it show?

If you said the drawing shows the number 147, you are right. There are 1 hundred, 4 tens, and 7 ones.

Draw the following numbers using hundreds flats, rods, and cubes.

1. 136

2. 175

Have the student draw the hundreds flat, tens rods, and unit cubes to show each number in the boxes.

It's as Easy as 1, 2, 3

Fill in the hundreds chart, counting by ones, starting with 101. Count out loud as you print each number.

101									
									200

Day 3: Counting by Ones

Now you know how to count larger numbers. One way is to make groups of ten. That makes counting easier.

Did you know that the same number can be shown in different ways? Yes, there are different ways of showing a number.

Today you will show the same number three different ways using your base ten blocks.

Counting by Ones

Lesson 1

Jasper, Elena, and Abdul could now count all the stamps in Abdul's stamp collection. They put the stamps into groups of ten. They had 17 groups of 10 stamps. There were 4 stamps left.

How many groups of ten were there?

How many were left?

What number is that?

Now they knew how many stamps Abdul had in his collection. He had 174 stamps!

Here are three ways of showing 174 with your blocks:

- 174 ones
- 17 tens and 4 ones
- 1 hundred, 7 tens, and 4 ones

Assist the student in finding the three ways of representing 174.

Take turns placing the hundreds flat and 1 cube in front of the student; then the hundreds flat and 2 cubes; then 3, 4, 5, 6, 7, 8, and 9 cubes. After showing each one, have the student write the number it represents. These numbers show 101, 102, 103, 104, 105, 106, 107, 108, and 109. Tell the student there are no rods, which means there are no tens. Emphasize the 0 in the tens place.

Show each of the three ways with your base ten blocks.

Lesson 2

Your home instructor will make numbers with the base ten blocks. Tell your home instructor what the number is. Then print the number in the place-value chart. The first one is done for you.

What number does the hundreds flat and one cube show?   101

Hundreds	Tens	Ones
1	0	1

Counting by Ones

What number does the hundreds flat and two cubes show?

[ ]

Hundreds	Tens	Ones

What number does the hundreds flat and three cubes show?

[ ]

Hundreds	Tens	Ones

What number does the hundreds flat and four cubes show?

[ ]

Hundreds	Tens	Ones

What number does the hundreds flat and five cubes show?

Hundreds	Tens	Ones

What number does the hundreds flat and six cubes show?

Hundreds	Tens	Ones

What number does the hundreds flat and seven cubes show?

Hundreds	Tens	Ones

Counting by Ones

What number does the hundreds flat and eight cubes show?

Hundreds	Tens	Ones

What number does the hundreds flat and nine cubes show?

Hundreds	Tens	Ones

What does it mean when there is a zero in the tens place?

This means there are no tens.

_____

_____

_____

Counting by Ones

1. Use the hundreds flat, tens rods, and unit cubes to show each of these numbers.

a. 187	c. 199	e. 126	g. 130	i. 159	k. 100	m.190
b. 107	d. 143	f. 165	h. 103	j. 108	l. 177	n. 105

2. Count by ones. Print the numbers that come next.

a. 101, ☐, ☐, ☐, ☐, ☐

b. 129, ☐, ☐, ☐, ☐, ☐

c. 146, ☐, ☐, ☐, ☐, ☐

d. 195, ☐, ☐, ☐, ☐, ☐

e. 167, ☐, ☐, ☐, ☐, ☐

Go to your Assignment Booklet 7A.

Day 4: Hundreds of Numbers

Jasper and Elena are getting better at using bigger numbers. How about you? Are you ready to use even bigger numbers? How high can you count?

When you use hundreds flats you can quickly show very big numbers. In fact, you can show hundreds of numbers. You can start right now by turning the page.

Lesson 1

Jasper and Elena were pleased that they could help their friend Abdul count his stamp collection. Now that they were back home, Jasper decided to count the cards in his hockey card collection. He asked Elena to help him. They put the cards into groups of ten to make the counting easier. When they got to 20 groups of ten they stopped. They had never counted this high before!

Hundreds of Numbers

Place a hundreds flat in front of the student. The student should print 100 for the number.

Place another hundreds flat beside the first one.

Continue placing hundreds flats up to 1000 beside the others. Have the student name each number.

Look at the hundreds flat. Name the number.
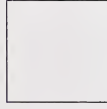
What number do these two hundreds flats show?
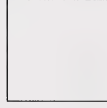
If you wrote 200, you are right.

One hundreds flat shows 100. Two hundreds flats show 200.

1. Print the number beside the hundreds flats. Then say the number out loud.

a. three hundreds flats

d. six hundreds flats
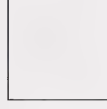
b. four hundreds flats
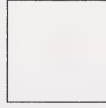
e. seven hundreds flats
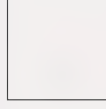
c. five hundreds flats

f. eight hundreds flats

g. nine hundreds flats ☐   h. ten hundreds flats ☐

Ten hundreds flats show 1000.

Do you think you can count to 1000?
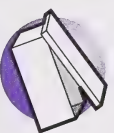
Take your calculator out of your Math Box.

2. Enter each of the numbers below on your calculator. After you enter it, make the number with the hundreds flat. Have your home instructor check each one.

a. 700   d. 300   g. 200

b. 800   e. 400   h. 1000

c. 100   f. 600   i. 900

Have the student enter the number on the calculator; then have him or her make the corresponding number with the hundreds flat. For example, the student will enter 700 on the calculator, then group 7 hundreds flats to show 700.

Hundreds of Numbers

Lesson 2

Every number has a value. Print the value of the numbers shown by the hundreds flats, rods, and cubes below. Say the number out loud and print it. Then print the value of the numbers in the place-value chart. The first one is done for you.
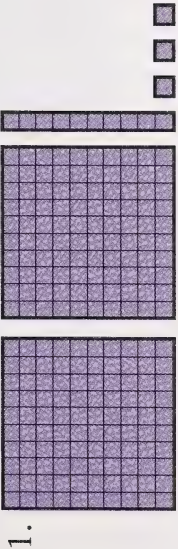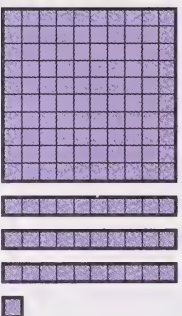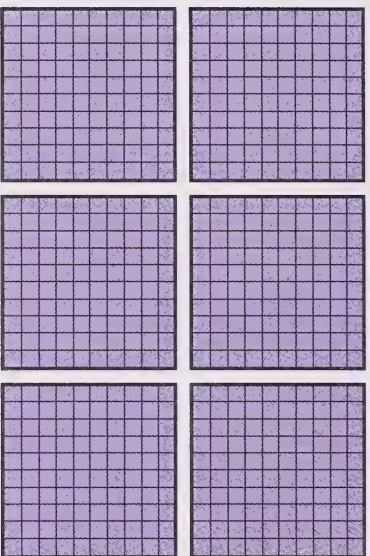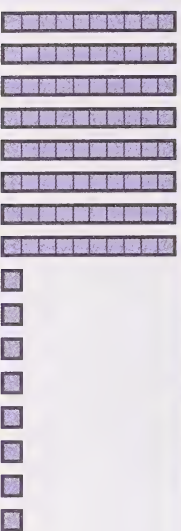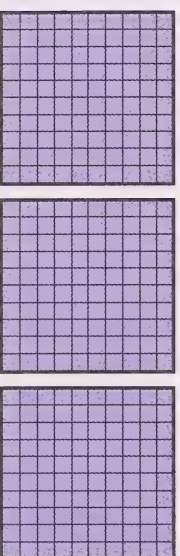
Hundreds	Tens	Ones
2	1	3

213

Hundreds	Tens	Ones

1.

2.

3.
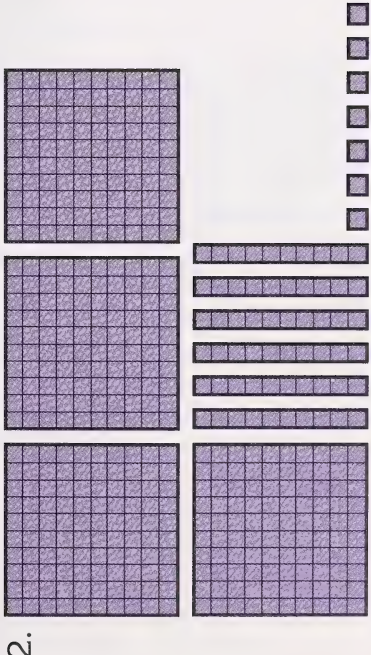
Hundreds	Tens	Ones

4.

Hundreds	Tens	Ones

Hundreds of Numbers

Hundreds	Tens	Ones

5.

6.
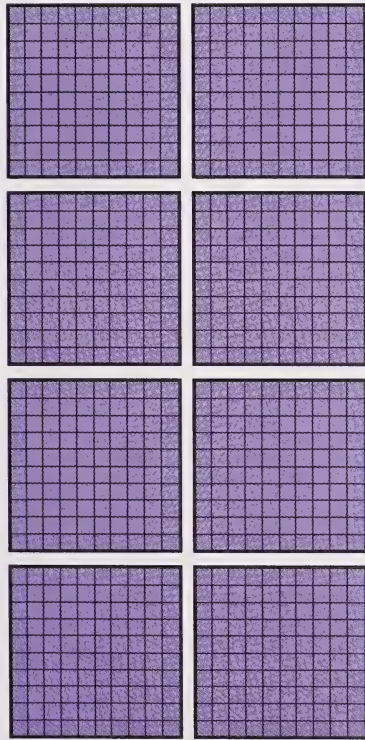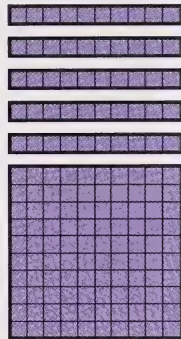
Hundreds	Tens	Ones

7.
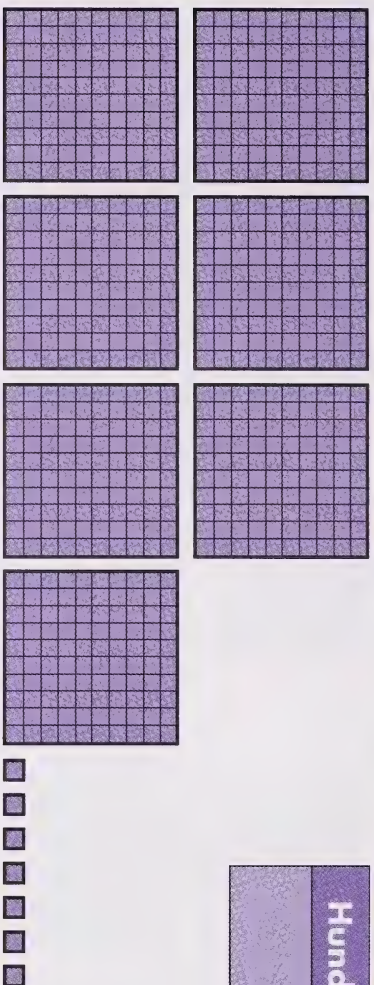
Hundreds	Tens	Ones

8.

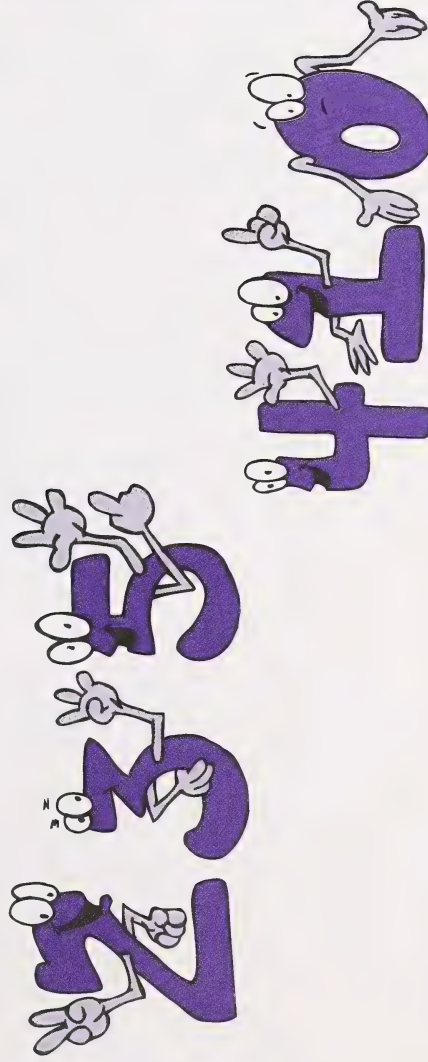| Hundreds	Tens	Ones
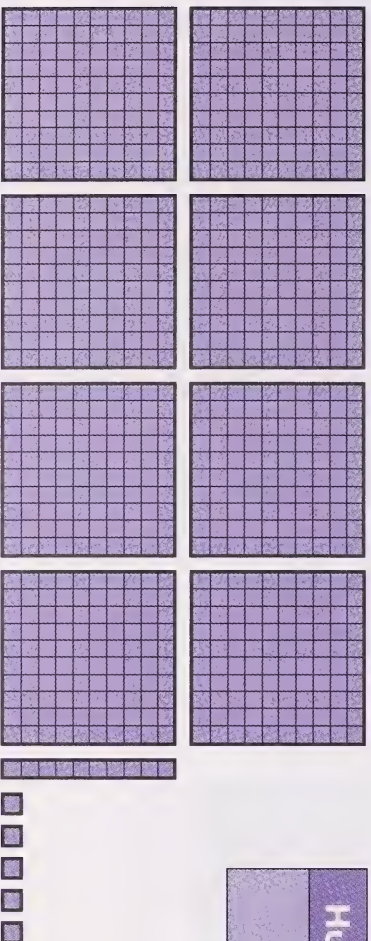
Hundreds of Numbers

Lesson 3

Now it's your turn to make numbers up to 1000 using the hundreds flats, rods, and cubes. After you make a number, show it to your home instructor. Tell your home instructor what the number is. Then print it in the boxes below. Make ten numbers.

Have the student make numbers with the flats, rods, and cubes, and then say the numbers to you. Then the student will print them in the boxes. Check to make sure the numbers correspond to the flats, rods, and cubes set up by the student.

Take your calculator out of your Math Box again.

Check the display screen to ensure the numbers are correct. Have the student say each number out loud.

Enter the following numbers in your calculator. Show the calculator to your home instructor and say each number out loud.

| 15 | 140 | 701 | 65 | 999 | 480 |
| 99 | 836 | 333 | 599 | 642 | 207 |

Have the student enter the number that is one more than the ones just entered. For example, the student will look at 15 and enter 16. Check each number to ensure it is correct.

Now, enter the number that is one more than each of those shown above. Have your home instructor check your numbers.

Do you think you can count numbers in the hundreds? Print the next five numbers after each of these.

1. 310, ☐, ☐, ☐, ☐, ☐

2. 752, ☐, ☐, ☐, ☐, ☐

3. 891, ☐, ☐, ☐, ☐, ☐

4. 465, [ ] , [ ] , [ ] , [ ] , [ ]

5. 118, [ ] , [ ] , [ ] , [ ] , [ ]

6. 670, [ ] , [ ] , [ ] , [ ] , [ ]

7. 203, [ ] , [ ] , [ ] , [ ] , [ ]

8. 580, [ ] , [ ] , [ ] , [ ] , [ ]

9. 995, [ ] , [ ] , [ ] , [ ] , [ ]

10. 398, [ ] , [ ] , [ ] , [ ] , [ ]

11. 185, [ ] , [ ] , [ ] , [ ] , [ ]

12. 409, [ ] , [ ] , [ ] , [ ] , [ ]

13. 617, [ ] , [ ] , [ ] , [ ] , [ ]

14. 855, [ ] , [ ] , [ ] , [ ] , [ ]

15. 234, [ ] , [ ] , [ ] , [ ] , [ ]

Hundreds of Numbers

Fill in the hundreds chart, counting by ones, starting with 201. Count out loud as you print each number.

201									
300									

Day 5: Two by Two

Today you are going to practise counting two by two. There is a pattern to counting by 2s. What could it be?

If you write the numbers as you count by 2s, you will see the patterns that are made. You can also use your calculator to see the patterns. That's just what you will do today.

Are you ready to begin working two by two?

Lesson 1

Can you think of a fun activity that involves counting out loud?

Brainstorm activities with the student. Activities can include skipping with a rope, counting items in a collection, and so on.
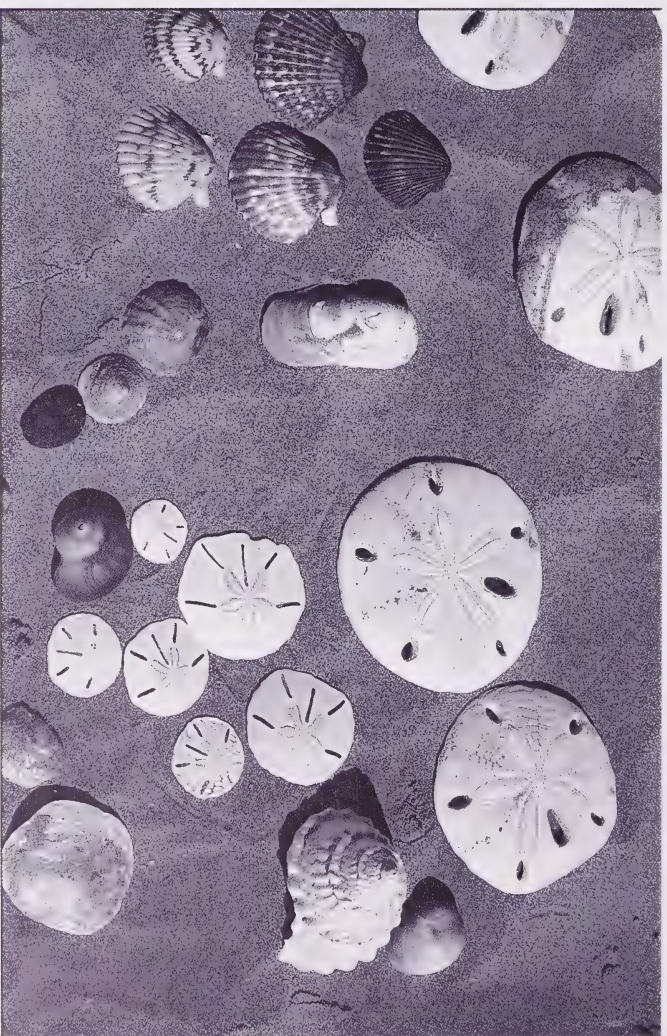
Skip rope or count items in a collection starting with 300 and going to 350 or more.

Two by Two

Fill in the hundreds chart, counting by ones, starting with 301. Count out loud as you print each number.

301									
									400

Lesson 2
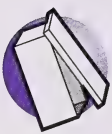
Choose 100 objects from your Math Box.

Put the items you selected from your Math Box into groups of two. Make 50 groups of two.
Once you have your groups, count them by twos out loud. Point to each group as you count.

1. Count by twos again. This time write the numbers down, starting with 2.

2.

2. At what number did you finish?

[ ]

Look at the numbers you wrote down. Do you notice a pattern? What is it?

The numbers are all even. Do you remember what that means? An even number can be divided into two equal parts. An even number always ends in either 2, 4, 6, 8, or 0. Check your numbers. Do they all end in 2, 4, 6, 8, or 0? They should. If not, go back and count by twos again and correct the numbers.

Lesson 3

You counted by twos to 100 in the last lesson. What do you think happens when you count by twos after 100? Tell your home instructor what you think.

With your manipulatives, make 20 more groups of two.

Count by twos from 100.

What is the next number to come after 100?

[ ]

If you said 102, you are right!

1. Count by twos from 100 up to 140. This time, print the numbers in the boxes.

100, 102, [ ], [ ], [ ], [ ], [ ], [ ], [ ], [ ], [ ], [ ],

Does the pattern stay the same? Circle 🌟Yes or 🌟No.

When you count by twos after 100, do the numbers remain even? Circle 🌟Yes or 🌟No.

Yes, they remain even.

Notice how the pattern does not change. All the numbers still end in either 2, 4, 6, 8, or 0.
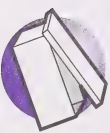
Take your calculator out of your Math Box.

You can skip count by twos on your calculator. To start from a number, for example 164, enter

1 **6** **4** **+** **2** **=** **=** **=** and so on.

See what happens when you count by twos starting from these numbers. Look at each number as it appears on the display screen.

Press the **=** key at least twenty times for each number.

202	420	852
310	546	788	936

If you skip counted by two from 286, would the number 303 appear

on the display screen? Circle **yes** or **no**.

Tell your home instructor why 303 would not appear.

The number 303 will not appear because it is not an even number. It does not end in a 2, 4, 6, 8, or 0.

2. Answer the following questions and explain your answers to your home instructor. Check your answers on your calculator.

a. If you skip counted by two from 796, would 812 be displayed? Circle **Yes** or **No**.

b. If you skip counted by two from 622, would 641 be displayed? Circle **Yes** or **No**.

c. If you skip counted by two from 348, would 379 be displayed? Circle **Yes** or **No**.

d. If you skip counted by two from 564, would 594 be displayed? Circle **Yes** or **No**.

e. If you skip counted by two from 198, would 217 be displayed? Circle **Yes** or **No**.

f. If you skip counted by two from 490, would 510 be displayed? Circle **Yes** or **No**.

g. If you skip counted by two from 284, would 311 be displayed? Circle **Yes** or **No**.

h. If you skip counted by two from 818, would 836 be displayed? Circle **Yes** or **No**.

Check the student's answers to the previous question. Only even numbers appear when skip counting by 2s.

3. Count by twos starting from the number given.

a. 354, ☐ , ☐ , ☐ , ☐ , ☐

b. 282, ☐ , ☐ , ☐ , ☐ , ☐

c. 796, ☐ , ☐ , ☐ , ☐ , ☐

d. 948, ☐ , ☐ , ☐ , ☐ , ☐

e. 430, ☐ , ☐ , ☐ , ☐ , ☐

f. 564, ☐ , ☐ , ☐ , ☐ , ☐

4. Count by twos to fill in the blanks in the chart.

648					
660					
672					
			690		
	698				
	710				718
			738		

Fill in the hundreds chart, counting by ones, starting with 401. Count out loud as you print each number.

401									
									500

Go to Assignment Booklet 7A.
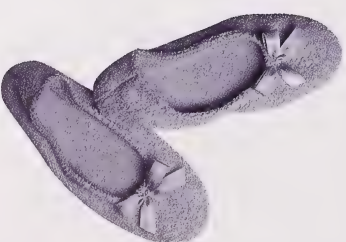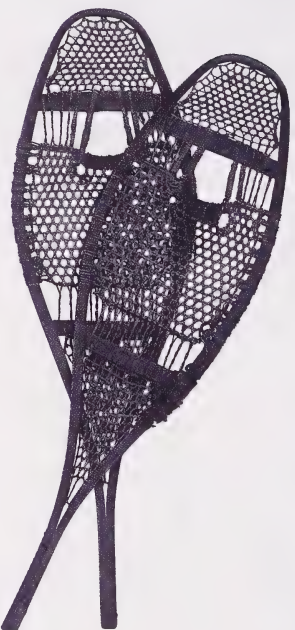
Day 6: Give Me Five

Have you ever counted while skipping rope? Skip counting is a way to count more quickly. Today you will count by 5s.

Do you remember how much a nickel is worth? If you use nickels, you will be counting by 5s. You will also use your calculator today.

What does "Give me five," mean? You and your home instructor can do a "give me five" to start today's work.

Lesson 1

Skip rope or count items in a collection starting with 500 to at least 550. Then fill in the hundreds chart, starting with 501. Count out loud as you print each number.

501									
									600

Lesson 2

Take out the nickels from your play money in the Math Box.

Count by 5s to 100 using the nickels. Point to each nickel as you count out loud.

1. Count by 5s again. This time, write the numbers down, starting with five.

5, ▭, ▭, ▭,

▭, ▭, ▭, ▭, ▭,

▭, ▭, ▭, ▭, ▭,

Look at the numbers you wrote down. Do you notice a pattern? What is it?
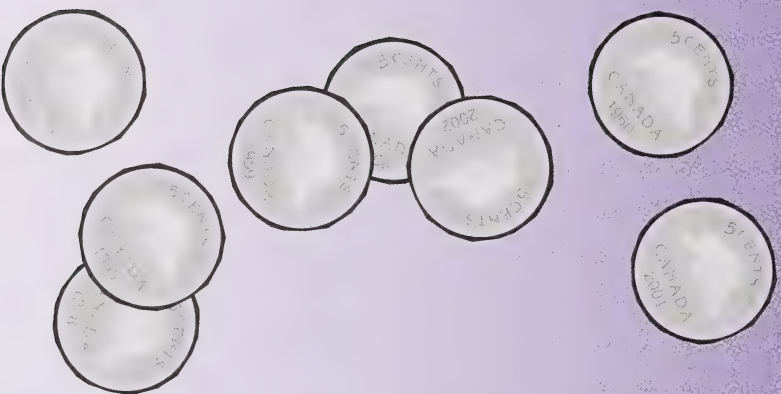
Check the numbers to make sure they are right. The pattern is that the last digit of every other number ends in a 0 or a 5.

Give Me Five

What do you think happens when you count by 5s after 100? Tell your home instructor what you think.

Count from 100 by 5s with your nickels. Use 20 more nickels. If you've run out of nickels, make 20 groups of 5 with a manipulative from your Math Box.

What is the next number to come after 100 when you count by fives?

[ ]

If you said 105, you are right!

2. Count by 5s from 100 again. This time, print the numbers.

100, 105, [ ], [ ], [ ], [ ], [ ], [ ], [ ], [ ],

[ ], [ ], [ ], [ ], [ ], [ ],

Does the pattern stay the same? Circle **Yes** or **No**.

When you count by 5s after 100, are the last digits of every number 0 and 5? Circle **Yes** or **No**.

Yes, they are. Notice how the pattern does not change. All the numbers still end in either 5 or 0.

3. Count by 5s from 200 and print the numbers in the boxes.

200,

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

4. Count by 5s from 700 and print the numbers in the boxes.

700,

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

5. Count by 5s from 900 and print the numbers in the boxes.

900, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐,

☐, ☐, ☐, ☐, ☐, ☐, ☐,

What is the last number you counted? ☐

Did you say 1000? You are right!

Lesson 3
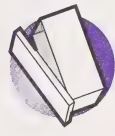
Take your calculator out of your Math Box.

You can skip count by 5s on your calculator. To start from a number, for example 185, press

1 **8** **5** **+** **5** **=** **=** **=** and so on.

See what happens when you count by 5s starting from these numbers. Look at each number as it appears on the display screen.

Press the ▮▮ key at least fifteen times for each number.

205	420	630	855
330	545	780	915

If you skip counted by 5s from 280, would the number 316 appear on the display screen? Circle **yes** or **no**

Tell your home instructor how you know that 316 would not appear.

1. What will the next four numbers be if you count by 5s?

a. 315, ▭ , ▭ , ▭ , ▭

b. 740, ▭ , ▭ , ▭ , ▭

The number 316 will not appear because it does not end in a 5 or a 0.

c. 980, ☐, ☐, ☐

d. 565, ☐, ☐, ☐

2. Answer the following questions. Explain your answers to your home instructor and then check them on your calculator.

a. If you skip counted by fives from 795, would 822 be displayed? Circle **Yes** or **No**.

b. If you skip counted by fives from 620, would 695 be displayed? Circle **Yes** or **No**.

c. If you skip counted by fives from 340, would 379 be displayed? Circle **Yes** or **No**.

d. If you skip counted by fives from 565, would 594 be displayed? Circle **Yes** or **No**.

e. If you skip counted by fives from 195, would 243 be displayed? Circle **Yes** or **No**.

f. If you skip counted by fives from 410, would 505 be displayed?

Circle **Yes** or **No**.

g. If you skip counted by fives from 285, would 310 be displayed?

Circle **Yes** or **No**.

h. If you skip counted by fives from 815, would 898 be displayed?

Circle **Yes** or **No**.

3. Count by 5s starting at each of the following numbers.

a. 355, ☐, ☐, ☐, ☐

b. 280, ☐, ☐, ☐, ☐

c. 795, ☐, ☐, ☐, ☐

Check the student's answers. If the number ends in a 5 or a 0, it will appear.

When you skip count by fives, the numbers all end in a 5 or a 0.

d. 945, ___, ___, ___, ___, ___

e. 430, ___, ___

f. 560, ___, ___, ___, ___, ___

4. Count by 5s to fill in the blanks in the chart.

650					
			705		
775					755
810	825				875
				680	

Fill in the hundreds chart, counting by ones, starting with 601. Count out loud as you print each number.

601									
									700

Go to Assignment Booklet 7A.

Day 7: Ten's the Ticket

Are you ready for more and bigger numbers? You are getting better and faster at using big numbers. Counting by tens makes using big numbers even easier.

Do you remember how much a dime is worth? When you count dimes you are counting by tens. What kind of pattern does counting by tens make?

For today, ten's the ticket! See how far and fast you can count by ten.

Ten's the Ticket

Lesson 1

Skip rope or count objects in a collection starting from 700 to at least 750. Then fill in the hundreds chart, counting by ones, starting with 701. Count out loud as you print each number.

701									
									800

Ten's the Ticket

Lesson 2
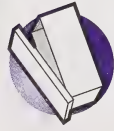
Take the dimes from the play money out of your Math Box.

Count by tens to 100 using the dimes. Point to each dime as you count out loud.

1. Count by tens again. This time, write the numbers down, starting with ten.

10, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐

Look at the numbers you wrote down. Do you notice a pattern? What is it?
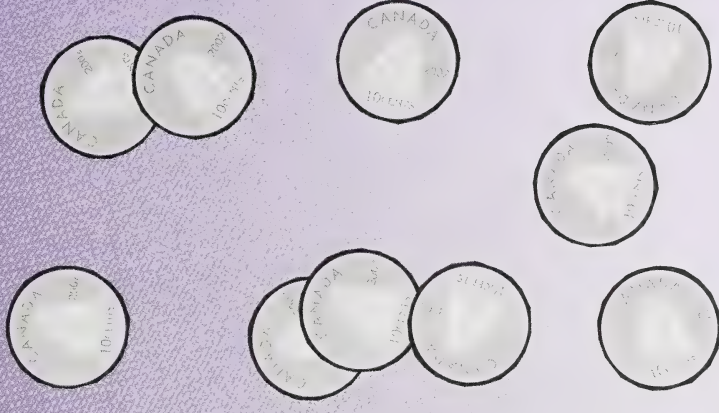
Check the numbers to make sure they are right. The pattern is that the last digit of every number ends in a 0.

What do you think happens when you count by tens after 100? Tell your home instructor what you think.

Add one more dime and count from 100. What number comes after 100 when you count by 10?

If you said 110, you are right!

Add another dime. What number comes after 110 when you count by 10?

120 is right. Add another dime. What number comes after 120 when you count by 10?

130 is right. Add another dime. What number comes after 130 when you count by 10?

140 is right. Add another dime. What number comes after 140 when you count by 10?

150 is right. Add another dime. What number comes after 150 when you count by 10?

Ten's the Ticket

160 is right. Add another dime. What number comes after 160 when you count by 10? ☐

170 is right. Add another dime. What number comes after 170 when you count by 10? ☐

180 is right. Add another dime. What number comes after 180 when you count by 10? ☐

190 is right. Add another dime. What number comes after 190 when you count by 10? ☐

200 is right. You can count by 10s up to 200!

2. Count by tens from 100 again out loud. Print the numbers in the boxes.

100, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐, ☐

75

Does the pattern stay the same? Circle 🐛 **yes** or 🐛 **no**.

When you count by tens after 100, is 0 the last digit of every number? Circle 🐛 **yes** or 🐛 **no**.

Yes, it is. Notice how the pattern does not change. All the numbers still end in 0.

3. Count by tens from 200 and print the numbers in the boxes.

200, ☐, ☐, ☐, ☐, ☐, ☐

4. Count by tens from 500 and print the numbers in the boxes.

500, ☐, ☐, ☐, ☐, ☐, ☐

5. Count by tens from 900 and print the numbers in the boxes.

900, ☐, ☐, ☐, ☐, ☐, ☐

What is the last number you counted?

Did you say 1000? You are right!

Lesson 3
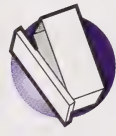
Take your calculator out of your Math Box.

You can skip count by tens on your calculator. To start from a number, for example 130, press

`1` `3` `0` `+` `1` `0` `=` `=` `=` and so on.

See what happens when you count by tens starting from these numbers. Look at each number as it appears on the display screen. Press the `=` key at least ten times for each number.

170	480	630
240	590	720
310	850	960

If you skip counted by tens from 370, would the number 438 appear

on the display screen? Circle **Yes** or **No**.

Tell your home instructor how you know 438 would not appear.

1. What will the next four numbers be if you count by tens from each given number?

a. 610, ☐, ☐, ☐, ☐

b. 880, ☐, ☐, ☐, ☐

c. 960, ☐, ☐, ☐, ☐

d. 540, ☐, ☐, ☐, ☐

When you skip count by tens, every number ends in zero.

The number 438 will not appear because it does not end in a 0.

Ten's the Ticket

2. Answer the following questions. Explain your answers to your home instructor and then check them on your calculator.

a. If you skip counted by tens from 790, would 822 be displayed? Circle **Yes** or **No**.

b. If you skip counted by tens from 600, would 690 be displayed? Circle **Yes** or **No**.

c. If you skip counted by tens from 330, would 370 be displayed? Circle **Yes** or **No**.

d. If you skip counted by tens from 560, would 635 be displayed? Circle **Yes** or **No**.

e. If you skip counted by tens from 180, would 240 be displayed? Circle **Yes** or **No**.

f. If you skip counted by tens from 410, would 505 be displayed? Circle **Yes** or **No**.

g. If you skip counted by tens from 250, would 310 be displayed? Circle **Yes** or **No**.

h. If you skip counted by tens from 820, would 897 be displayed? Circle **Yes** or **No**.

Check the student's answers to the previous question. If the number ends in a 0, it will appear.

3. Count by tens starting with each of the following numbers.

a. 340, ▢, ▢, ▢, ▢

b. 270, ▢, ▢, ▢, ▢

c. 790, ▢, ▢, ▢, ▢

d. 930, ▢, ▢, ▢, ▢

e. 410, ▢, ▢, ▢, ▢

f. 550, ▢, ▢, ▢, ▢

After filling in the chart in question 4, brainstorm with the student at least two patterns. (All the numbers end in 0; the first numbers in every column are numbered 1 to 9).

Ten's the Ticket

4. Count by tens

10						70			
				150					
								290	
		330							
					460				
	520								
			640						
							780		
									900
910									

Tell your home instructor what patterns you see.

Ten's the Ticket

Fill in the hundreds chart, counting by ones, starting with 801. Count out loud as you print each number.

801									
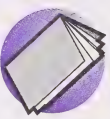
Go to Assignment Booklet 7A.

Day 8: I Can Count by 25s

Now you can count by 2s, 5s, and 10s. Which way is the fastest way to count to 100? to 1000?

You know how much a nickel and a dime are worth. You can count your nickels and dimes!

Do you remember how much a quarter is worth? Today's challenge is to count by 25s.

Lesson 1

Fill in the hundreds chart, counting by ones, starting with 901. Count out loud as you print each number.

901									
1000									

I Can Count by 25s

Lesson 2
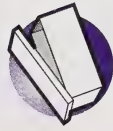
Take four quarters from the play money out of your Math Box.

Do you remember from Module 6 how much a quarter is worth? A quarter is worth

[ ] ¢

One quarter is worth 25 cents.

1 quarter = 25¢

If one quarter is worth 25¢, how much are two quarters worth?

Here is a way of figuring that out: If one quarter is worth 25, then two quarters are worth 25 plus 25.

Print the equation.

[ ] + [ ] = [ ]

Did you write 25 + 25? You were right. Solve the problem again.

```
  25
+ 25
────
```

Now, what are two quarters worth? ⬜ ¢

Did you say 50¢?

Yes, two quarters are worth 50¢.

2 quarters = 50 ¢

If two quarters are worth 50¢, then what are three quarters worth?

How would you figure that out?

Print the equation. ⬜ + ⬜ = ⬜

Did you write 25 + 50 ? Solve the problem again.

$$\begin{array}{r} 25 \\ + \ 50 \\ \hline \end{array}$$

Tell your home instructor why you added 25 and 50 together.

The student should explain that he or she added 25 to 50 because two quarters are worth 50¢, so 25 is added to find out what three quarters are worth.

I Can Count by 25s

What are three quarters worth? [ ] ¢

Three quarters are worth 75¢.

3 quarters = 75¢

How would you find out what four quarters are worth?

The student should explain that three quarters are worth 75¢, so 25 is added to find out what four quarters are worth.

Did you say add 25 to 75? If you did, you were right.

Print the equation. _____ + _____ = [ ]

Did you write 25 + 75? Solve the problem again.

$$\begin{array}{r} 25 \\ + 75 \\ \hline \end{array}$$

What are four quarters worth? [ ] ¢

Four quarters are worth 100¢. 4 quarters = 100¢

What is another way of saying 100¢? _____

One dollar is another way of saying 100¢.

Lesson 3

Point to each of your four quarters and count by 25s out loud. Print the numbers, starting with 25.

25, [ ] , [ ] , [ ]

Did you write 25, 50, 75, 100? If so, you now know how to count to 100 by 25s!

How many 25s are in 100? [ ]

There are four 25s in 100.
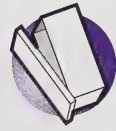
I Can Count by 25s

Take your calculator out of your Math Box.

You can skip count by 25s on your calculator. To start from 25, enter

| 2 | 5 | + | 2 | 5 | = | = | = | and so on.

Predict what the next numbers will be if you count by 25s starting at the given number. Check you answers on your calculator.

1. a. 25, ☐, ☐

b. 75, ☐

c. 50, ☐, ☐

d. 25, ☐, ☐

2. Count the quarters and print the value of each.

a.

¢

b.

¢

c.

¢

d.

¢

For more practice counting big numbers, go to the Extension Activities.

Go to Assignment Booklet 7A.
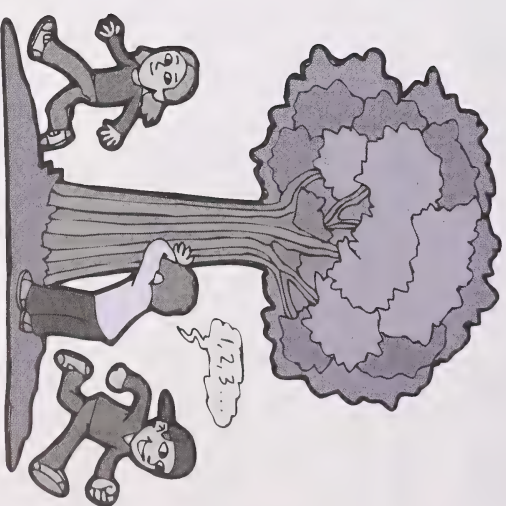
Day 9: Equal Groups of Two

Elena and Jasper have some problems you can help them solve today. One problem is about making equal groups of cookies. Like Jasper, you will use some cubes and pretend they are cookies. Solving the problem will be easy by sorting the cubes into equal groups.

Are there any parts of your body that come in equal groups of two? Believe it or not, you will use the answer to this question to help you work through some problems today.

It's time to see what you can do with equal groups of two!

Lesson 1

The community league in Elena and Jasper's home town was having a bake sale. Elena and Jasper wanted to make something for the sale. They decided to make peanut butter cookies.

Jasper thought it would be a good idea to sell the cookies in sets on paper plates. Elena suggested they put two cookies on each paper plate. They decided to sell the plates of cookies for ten cents each.

Elena bought a package of paper plates. There were twenty plates in the package. Jasper wondered how many cookies they would have to bake. Jasper and Elena had to figure out how many cookies would fill all those twenty plates, with two cookies on each plate.

Jasper and Elena thought of different ways to figure out their problem. Jasper took some cubes and pretended they were cookies. He made equal groups of two by putting two cubes on each of the twenty paper plates. Elena drew twenty plates with two cookies on each plate.

Here are Jasper's cubes.

This is the drawing Elena made of the cookies on the plates.

Now that Elena and Jasper had a drawing of the cookies and cubes showing the number of cookies per plate, how would they know how many cookies to bake in all?

Elena and Jasper came up with three different ways of finding out how many cookies they had to bake. They knew they could count each one, but that would take a lot of time. They knew they could count by twos and that would be a quick way. They also knew they could add the groups of two. This is how they added the groups:

$2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2 = \boxed{}$

Guide the student to understand that he or she could count each cookie, count the groups in twos, or add two plus two twenty times.

They had to add twenty twos together, which was an awful lot of work.

Take blocks or cubes out of your Math Box.

With your cubes, find out how many cookies Elena and Jasper would have to bake.

Arrange your cubes in groups of two.

Count the groups of cubes you made. How many groups are there?

Did you make twenty groups? Circle **yes** or **no**.

There are twenty plates to put cookies on. You need twenty groups.

How many cubes are in each group?

There are 2 cubes in each group, and 20 groups in all. 20 groups of 2 =

You should have counted twenty groups of two cubes in each, for a total of 40 cubes.

20 groups of 2 = 40.

Equal Groups of Two

Jasper and Elena now know they would have to bake 40 cookies.

If they sold all the cookies at ten cents a plate, how much money would Jasper and Elena have made for their community league? How would you figure that out?

What did you do to work out how much money Elena and Jasper would make?

_____

_____

If you said skip counting by tens, you are right. Did you remember that there are 100 cents in one dollar?

How many cents are in two dollars? [ ] ¢   200 cents is correct.

What is the total amount of money Elena and Jasper could make if

they sold all the cookies? [ ] ¢ or [ ] dollars

If you said two dollars, you are right!

Lesson 2

Many things come in equal groups of two. Can you think of any? List at least three.

Things in twos can include eyes, ears, hands, feet, legs, arms, wheels on a bicycle, socks, mittens, and so on.

- _____

- _____

- _____

Elena was visiting her uncle in Whitehorse. Her uncle raises husky dogs. Elena noticed how beautiful their eyes were. She wondered how many eyes were looking at her. She tried to count them all, but they kept looking away, which made it hard to count. Instead, she counted the number of dogs in the kennel.

Elena counted 9 dogs. She asked her uncle for some blocks to count with. She put two blocks in each group. She made 9 groups.

Why do you think she put the blocks into groups of two?

Yes, she did that because each dog has two eyes.

Equal Groups of Two

Then Elena drew the dogs.
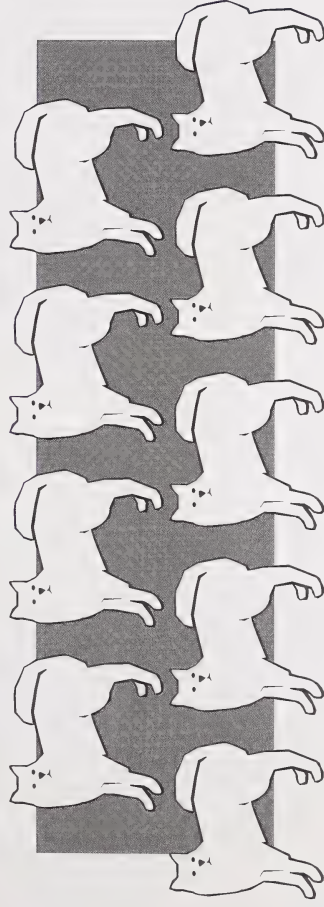
With your cubes, make 9 groups of two.

Count each group by twos. 9 groups of 2 = ☐

How many eyes did Elena see looking back at her?

If you said 18, you are right. Elena saw 18 eyes.

Look at the list you made earlier of things that come in equal groups of two. Make up a story problem about one of those groups.

Brainstorm with the student ideas on story problems with groups of two.

Print your story problem here.

Equal Groups of Two
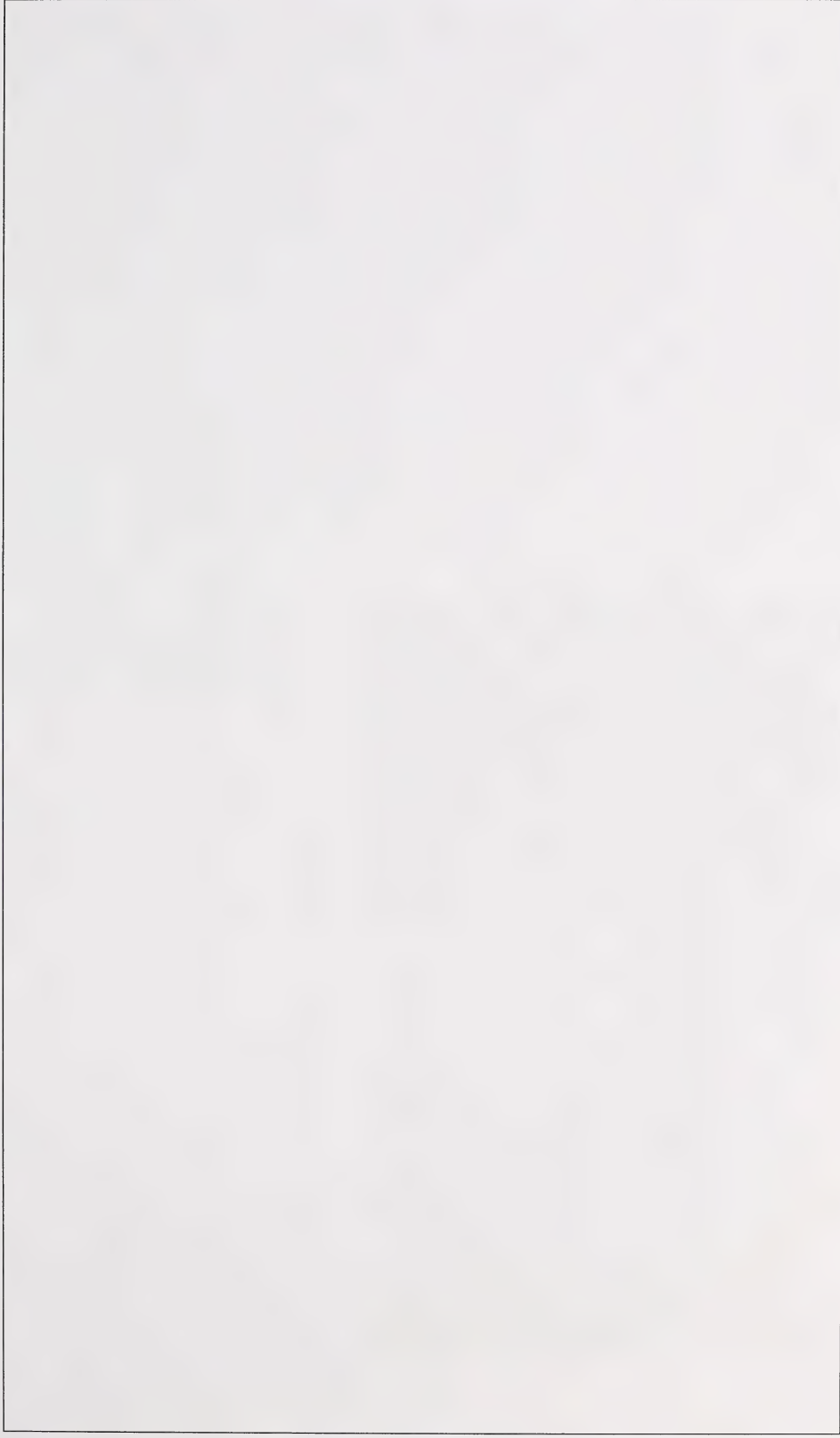
Draw a picture of your problem in the box.

The student can describe one of several possibilities: counting each item individually, skip counting by twos, or adding two plus two plus two, and so on until all the groups have been added.

Now use your cubes to solve the problem.

How did you figure out the answer to your story problem?

Day 10: More Equal Groups

Are you ready to explore more equal groups?

You know you can have equal groups of two. How about equal groups of three? Can you have equal groups of four?

Using your cubes and drawing pictures will help you solve many problems today.

Lesson 1

Jasper and Elena enjoyed working with equal groups of two. They practised some more with equal groups. These are the activities they worked on. Try them yourself.

1. Look at these groups of items and print the total number.

a.

$2 + 2 + 2 =$ ☐

3 groups of 2 = ☐

b.

$2 + 0 =$ ☐

1 group of 2 = ☐

c.

$2 + 2 + 2 + 2 + 2 + 2 =$ ☐

6 groups of 2 = ☐

d.

$2 + 2 =$ ☐

2 groups of 2 = ☐

More Equal Groups

2. Choose any object you want to show these equal groups. Draw pictures for each.

a. six groups of two	b. seven groups of two
c. four groups of two	d. ten groups of two

The student may need your help with question 3. Have the student draw all the items, and then total the number. The student doesn't have to draw exact representations of the item. Elephants, for example, can be large circles with two ears on each one.
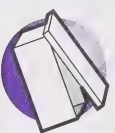
Take your cubes out of your Math Box

3. Solve these problems. Draw pictures for each one. Use your cubes to help you find the answers. The first one is done for you.

a. Abe has eight bags of candy. There are two jawbreakers in each bag. How many jawbreakers does Abe have in all? | 16 |
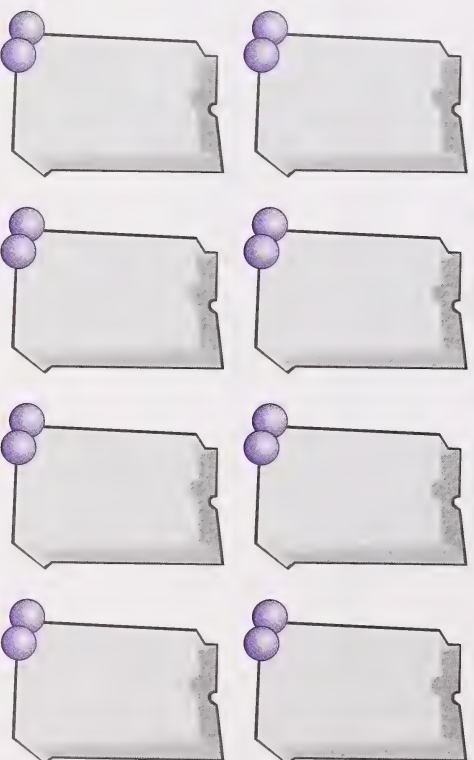
b. Myros found 10 pairs of socks at the rink.

How many socks did he find in all?

c. Barb saw three elephants at the zoo. How many ears did the elephants have in all?

d. Sharla bought three packages of paper towels and four packages of juice boxes. There were two paper towels in each package, and two juice boxes in each package.

How many paper towels and juice boxes did Sharla buy in all?

These can include a three-leaf clover, a tricycle, a three-legged stool, and so on.
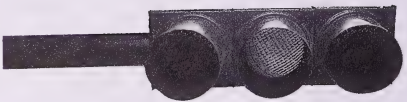
Lesson 2

You made a list of equal groups of two in Day 9. Now can you find equal groups of three? Look in your room, in your house, and even outside for groups of three. Then list at least three of them.

- _____
- _____
- _____

Did you have a harder time finding equal groups of three than equal groups of two? You probably did. There are more things around you that have even equal groups than odd equal groups.

Jasper had to solve this problem:

Alphonse has four dogs. He gave each dog three dog bones. How many bones did he give his dogs in all?

What should Jasper do first?

_____

_____

_____

Yes, Jasper can either draw pictures of the dogs and their bones, or he can use his cubes. He did both. First, he arranged his cubes to show the dogs and the bones. This is how he arranged the cubes.

Guide the student to respond that there are four dogs with three bones each. That means there are four groups of three cubes.

Do you know why he arranged the cubes like this? Tell your home instructor.

This is the drawing Jasper made to show the equal groups of three.

4 groups of 3 = [ ]
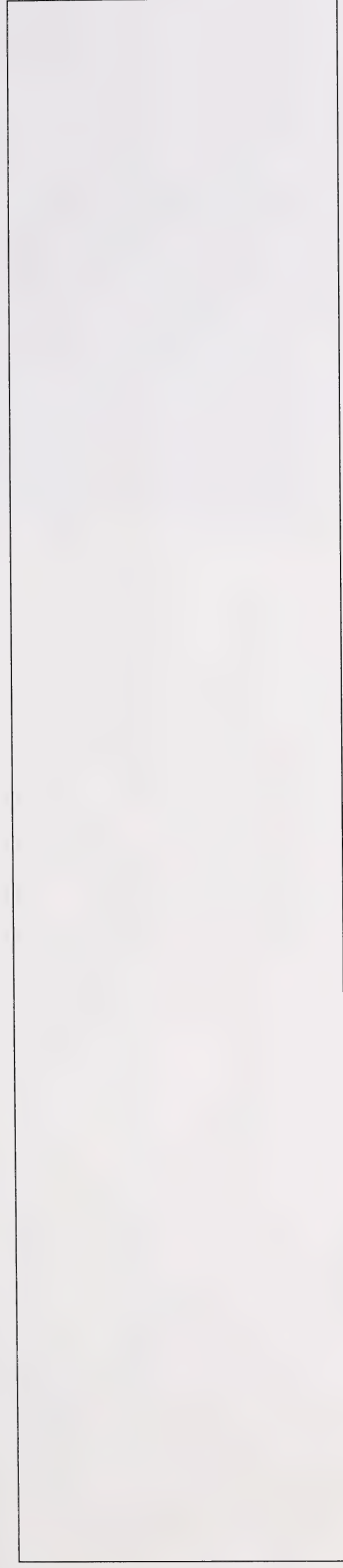
How many bones did Alphonse give his dogs in all? [ ]

Did you say twelve? Then you are right! How did you know the answer was twelve? Tell your home instructor.

The student may have chosen to count each bone, count by three, or add 3 + 3 + 3 + 3.

More Equal Groups

Use your cubes to help you solve these problems. Then draw a picture for each one.

1. Seven children went to the library to check out books. They each checked out three books. How many books did they check out in all?

7 groups of 3 = ☐

The children checked out ☐ books in all.

2. Stanley's father made pancakes for the whole family. He made three pancakes each for five people. How many pancakes did he make in all?

5 groups of 3 = ☐

Stanley's father made ☐ pancakes in all.

More Equal Groups

Lesson 3

So far you've made a list of equal groups of two and three. Can you find equal groups of four? Look in your room, in your house, and even outside for groups of four. List at least three equal groups of four you found.

Equal groups of four can include legs on animals, tires on a car, legs on a chair, and so on.

- _____
- _____
- _____

Can you find equal groups of five? Look in your room, in your house, and even outside for groups of five. List the equal groups of five you found.
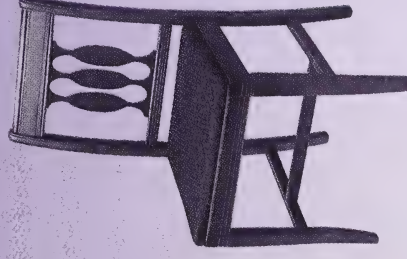
Equal groups of five can include fingers on a hand, toes on a foot, items in packages (five pencils in a package), and so on.

- _____
- _____
- _____

1. Solve these problems. Each one has a picture started for you. Finish drawing the pictures in order to find a solution.

a. How many fingers are on five hands?

There are [   ] fingers on five hands.

b. How many legs are on six chairs?
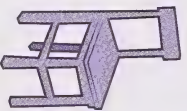
There are [   ] legs on six chairs.

c. How many tires are on three cars?

There are [   ] tires on three cars.

d. How many toes are on four feet?
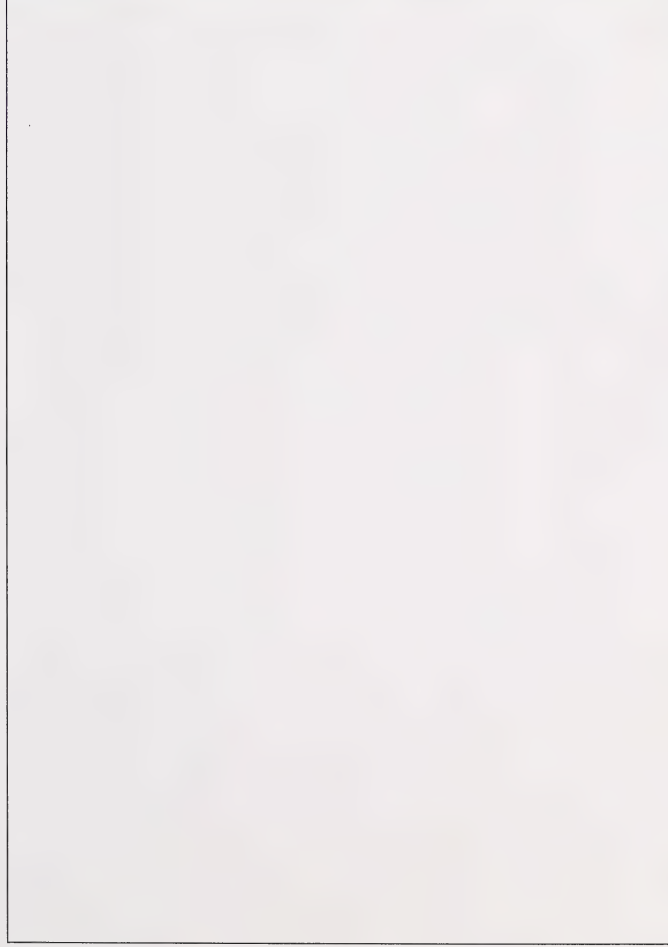
There are [   ] toes on four feet.

More Equal Groups
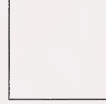
2. Use your cubes to make groups. After you have made each group, draw the cubes in the box. Then fill in the answer box.

a. Make four groups of three cubes.
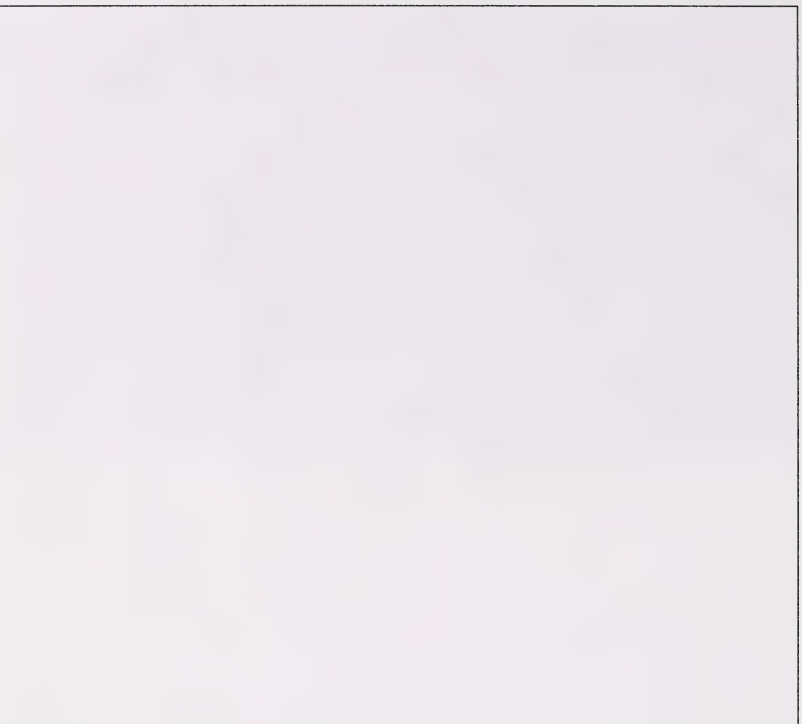
4 groups of 3 = ☐
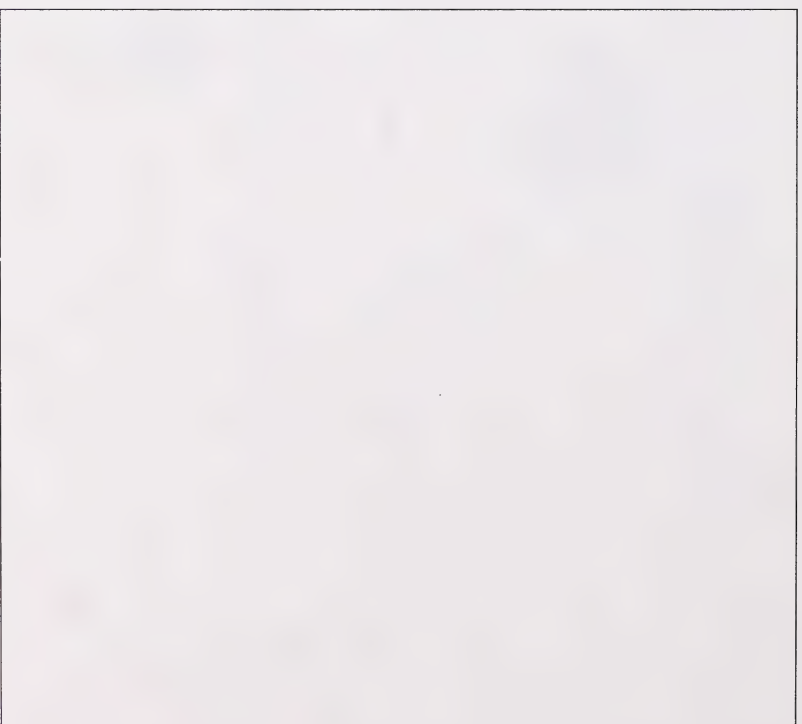
b. Make five groups of four cubes.
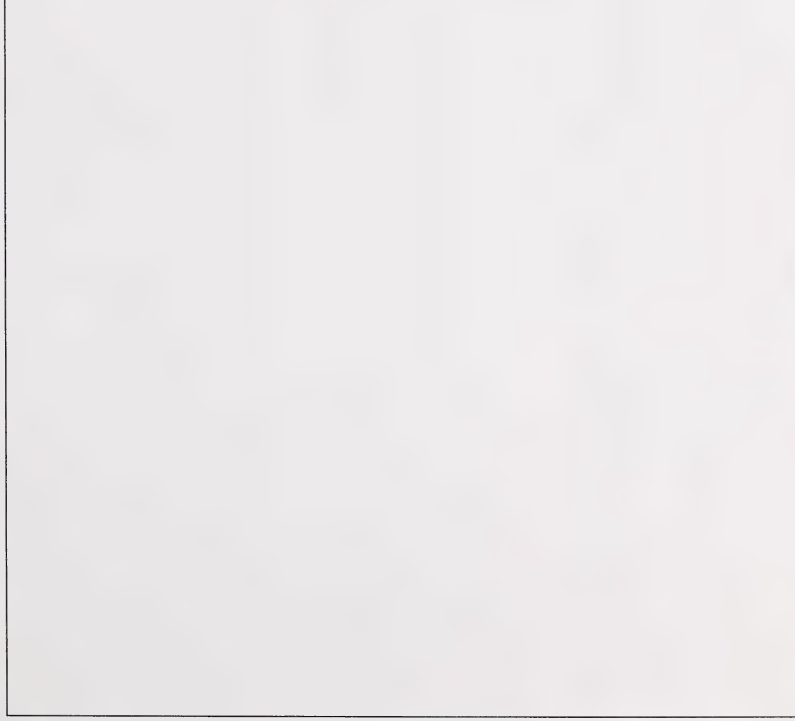
c. Make seven groups of two cubes.
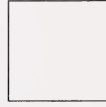
5 groups of 4 = ▢

7 groups of 2 = ▢
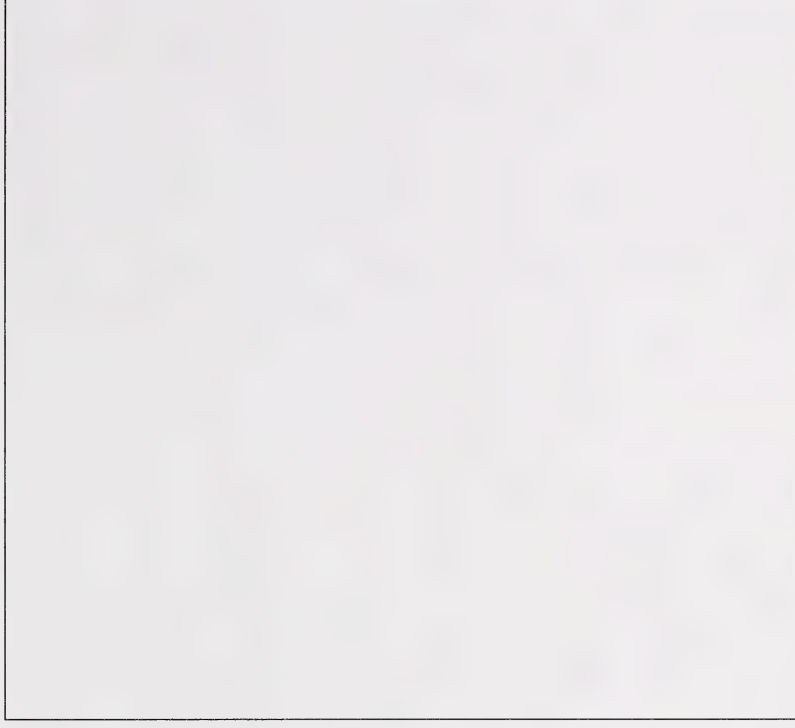
d. Make six groups of three cubes.
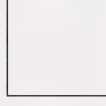
e. Make five groups of five cubes.

6 groups of 3 = ☐
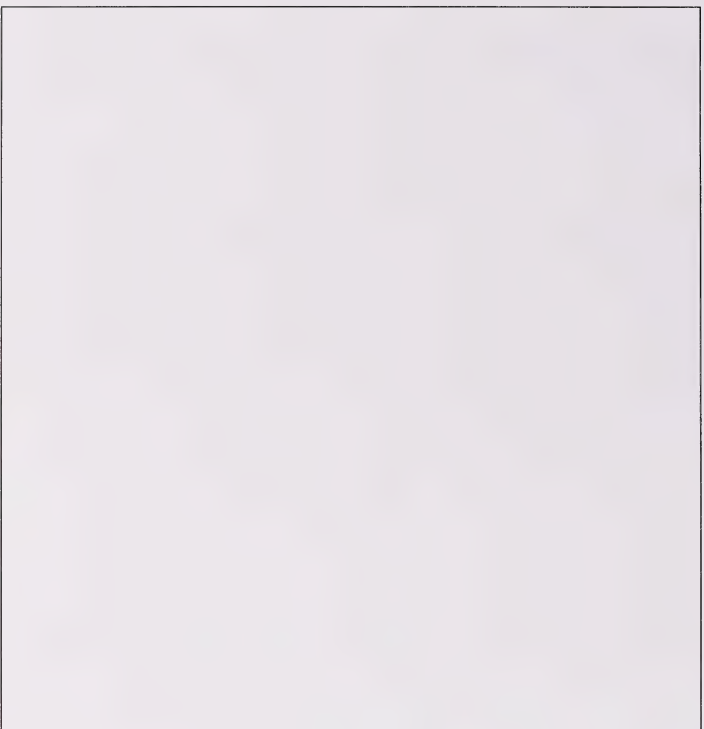
5 groups of 5 = ☐
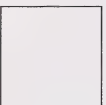
More Equal Groups

f. Make three groups of six cubes.

g. Make three groups of seven cubes.

3 groups of 6 =

3 groups of 7 =
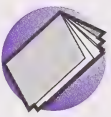
Go to Assignment Booklet 7B.

Day 11: Equal Groups from the Same Number

Elena found working with equal groups interesting. She noticed that sometimes she could make different equal groups from the same number. How did she do that?

Just like Elena you will arrange your cubes to show different equal groups for some numbers. That can be tricky.

You will need to put your thinking cap on for today's work! Is it on? Good. Then you are ready to begin.

Lesson 1

Right now, you'll review what you have learned so far about equal groups.

Draw pictures to show the following equal groups.

1. 4 groups of 3

```
┌─────────────────────────────────────────────────┐
│                                                   │
│                                                   │
│                                                   │
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│                                                   │
│                                                   │
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│                                                   │
└─────────────────────────────────────────────────┘
```

How many groups are there? ☐   How many are in each group? ☐

How many are there in all? ☐   ☐ groups of ☐ = ☐

Equal Groups from the Same Number

2. 5 groups of 2

How many groups are there?

How many are in each group?

How many are there in all?

groups of

=

3. 3 groups of 4

How many groups are there?

How many are there in all?

How many are in each group?

☐ groups of ☐ = ☐

Equal Groups from the Same Number

Lesson 2

Elena noticed some interesting things while she was working with equal groups. She was able to make different equal groups from the same number! Here is what Elena discovered when she worked with tiles.

Elena started with this many tiles.

1. How many tiles do you see?
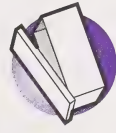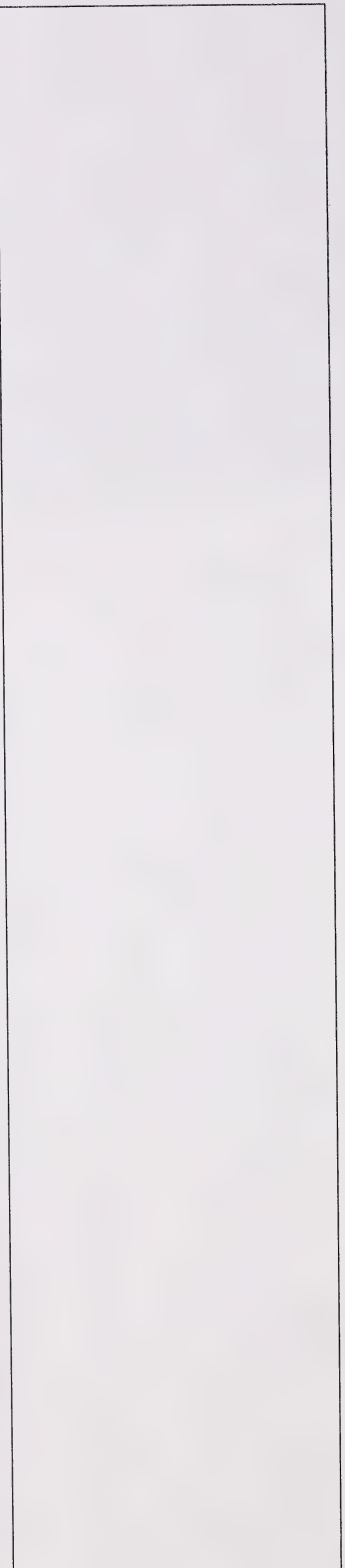
Take your cubes out of your Math Box.

2. With your cubes, make three sets of four. How many cubes did you use in all?
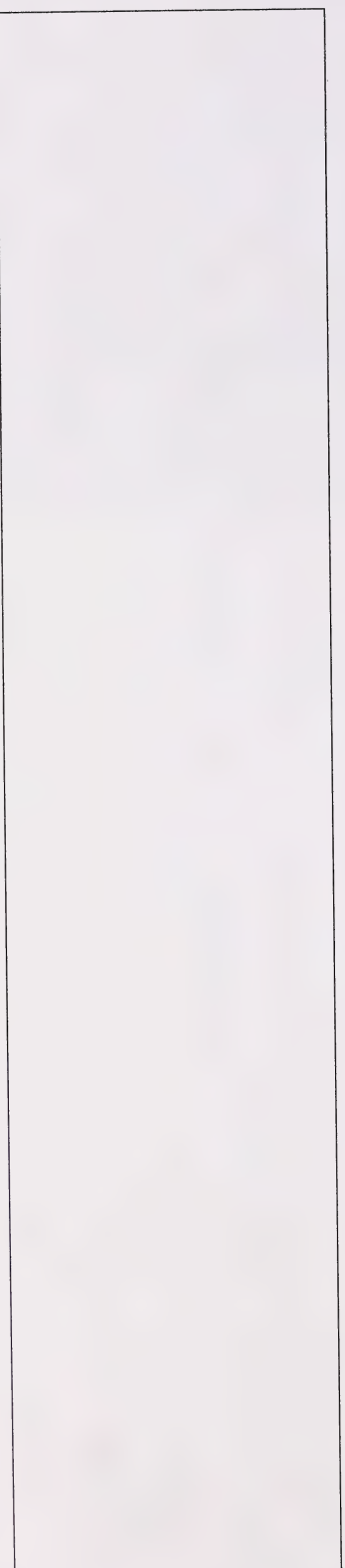
Have the student make the groups with the cubes first; then have them draw the arrangement in the boxes.

3. Make a drawing in the box to show how you arranged your cubes.
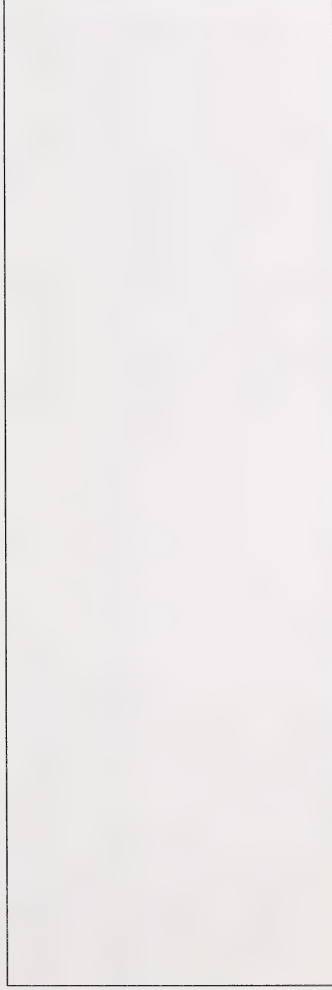
4. Use the same number of cubes to show groups of two. Then make a drawing to show how you arranged them.

5. How many groups of two are there in twelve?

6. Can you find another way of arranging twelve cubes into equal

groups? Circle   yes   or   no .

Show how you would arrange them with your cubes. Then draw them in the box.

Have the student think of putting the 12 cubes into two groups of six.

Print the other way of arranging twelve cubes into equal groups.

☐ groups of ☐

Did you write two groups of six? If you did, you are right.

7. There is yet another way of arranging twelve cubes into equal groups. Talk with your home instructor about it.

Did you think of another way? Show the new way with your cubes. Then draw them in the box.

Print the numbers that show this way of arranging twelve cubes into equal groups.

[   ] groups of [   ]

Did you say twelve groups of one? You are right again.

Discuss putting the cubes into equal groups of one.

Equal Groups from the Same Number

Here are all the ways you can arrange the number twelve into equal groups:

- 3 groups of 4
- 4 groups of 3
- 2 groups of 6
- 6 groups of 2
- 12 groups of 1

Elena found five different ways of arranging her twelve tiles into equal groups.

Lesson 3

Show the different ways Elena could arrange tiles if she had only eleven. Tell your home instructor how many ways you can arrange eleven cubes into equal groups.

Discuss how the tiles can be made into 11 groups of one. Tell the student that some numbers cannot be arranged into equal groups other than groups of one.

Did you find many different ways? Circle yes or no .

Equal Groups from the Same Number

Show how to arrange the eleven tiles into equal groups with your cubes. Then draw them in the box.

Every number can be made into equal groups of one. Most numbers, however, can be made into different equal groups. There are some that cannot be made into equal groups, other than equal groups of one.
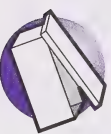
Choose a manipulative from your Math Box.

Equal Groups from the Same Number

Use your manipulative to arrange these numbers into different equal groups: 3 5 7 13.

Could you make equal groups other than groups of one with those numbers? Circle **yes** or **no**.

No, you couldn't. Those are some of the numbers that cannot be made into different equal groups.

These numbers can be arranged into different equal groups. Show as many different ways as you can with your manipulative.

1. 22	3. 15	5. 16	7. 24
2. 10	4. 18	6. 14	8. 30

For more practice making equal groups, go to the Extension Activities.

Day 12: Sharing Equal Groups

When you share things with your friends it is important to share them equally. Everyone wants the same amount. Elena and Jasper want to share things equally too.

Making two equal parts can be easy, but sometimes you have to make four or five equal groups. How do you do that?

Today you will be sharing items, such as licorice, pancakes, apples, and flowers, to make many different equal groups.

Elena and Jasper went to a movie with their friend Ian. When they got to the movie theatre, Elena bought a bag of licorice. She wanted to share the licorice equally among the three of them. She counted twelve sticks of licorice in the bag.
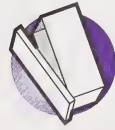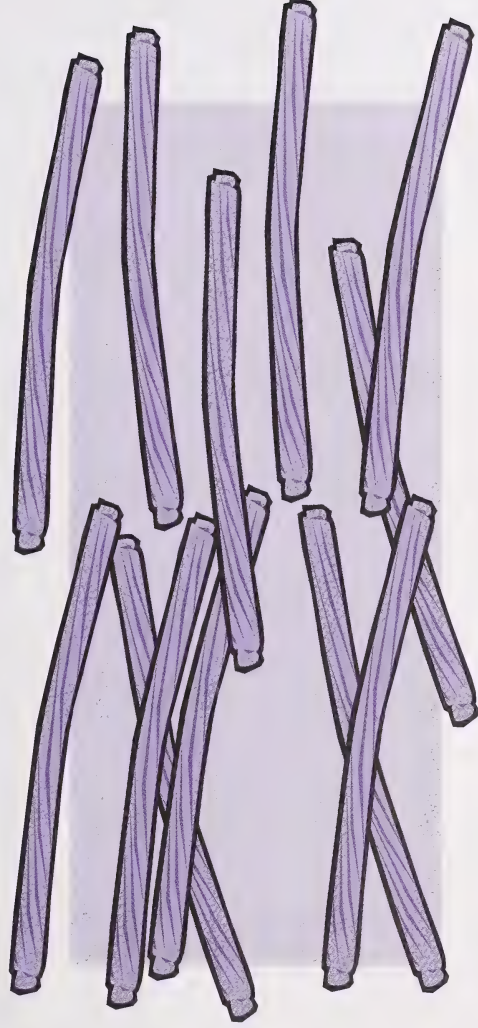
Select a manipulative from your Math Box.

Count out twelve markers from your manipulatives. Pretend the markers are the licorice Elena is sharing with her friends. Divide the markers evenly among Elena, Jasper, and Ian by placing them on the boxes below. Then draw the pieces of licorice in each box.

Elena	Jasper	Ian

How do you know that you divided the licorice evenly? Tell your home instructor.

If you said each child got the same number of licorice sticks, you are right. How many pieces of licorice did each child get? ☐ pieces

Yes, each child got four pieces of licorice.
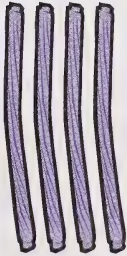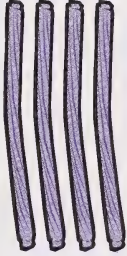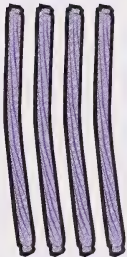
Guide the student to realize that each child got four pieces of licorice.

Sharing Equal Groups

Elena	Jasper	Ian

When you share twelve items equally between three people, you know that each person will get four items.

Elena divided her bag of twelve pieces of licorice into three groups. Each group had four pieces of licorice.

When Elena gave Ian his four pieces of licorice, he said, "No thanks, I don't like licorice." Jasper said he would eat Ian's licorice for him. Elena said no, they would share the licorice equally between the two of them.

Elena now had to divide the licorice into two equal parts—one part for her and one part for Jasper.

Find out how Elena can share the licorice equally with Jasper. Use your manipulatives to show what she can do.

The student should arrange the manipulatives into two groups of six.

Draw a picture to show how you arranged the markers.

Lesson 2

Count the cookies.
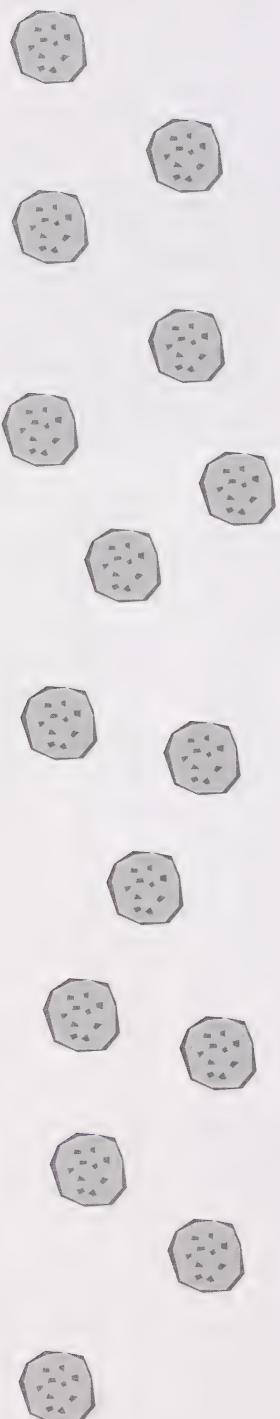
How many cookies are there? ☐

Sharing Equal Groups

Now you will share all fifteen cookies. Draw an equal amount of cookies on each plate. As you draw a cookie on a plate, cross it out on the page. That will help you keep track of the cookies that already have been drawn.
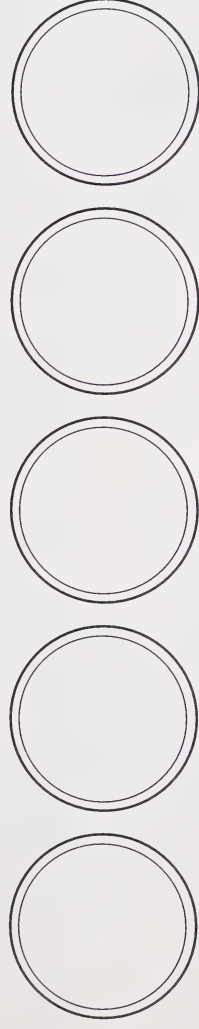
How many cookies did you draw on each plate? There should be three cookies on each plate.

Here are the fifteen cookies again. This time, you have to share them on three plates. Draw the cookies on each plate, crossing them out as you draw them.
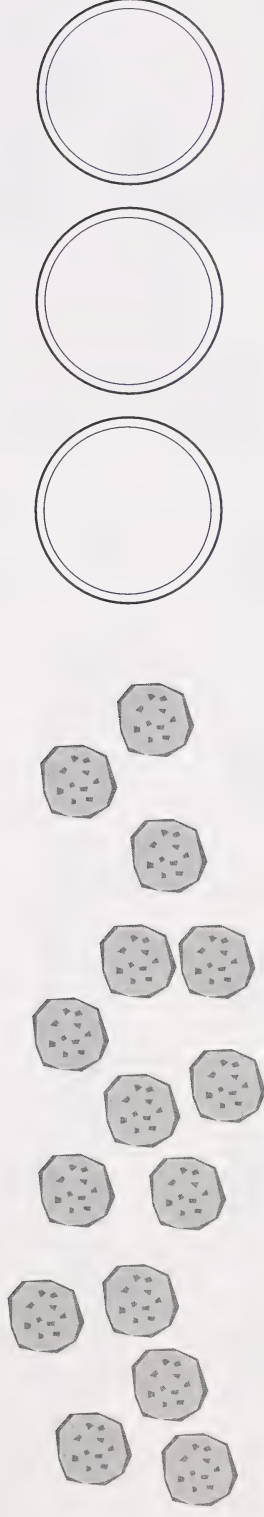
How many cookies did you draw on each plate? There should be five cookies on each plate.

Have 10 cups ready. Give 20 items of a manipulative and 5 cups to the student. Follow the instructions with the student.

Now you know two ways in which 15 items can be equally shared.

Your home instructor just gave you 20 items and some cups. Share the items equally among the five cups. After you have done that, answer the following questions.

How many groups or cups are there?

How many items are in each cup?

If you said there are five groups with four items in each cup, you are right.

Sharing Equal Groups
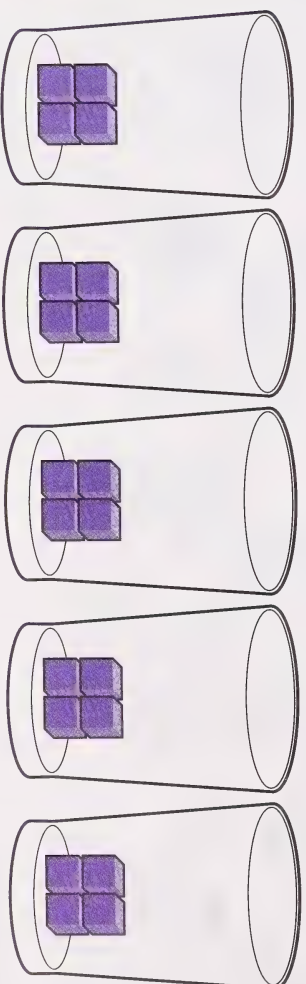
Empty the cups. Your home instructor will take one of the cups away. Share the same 20 items equally among the four cups. Then, answer the following questions.

How many groups or cups are there?

How many items are in each cup?
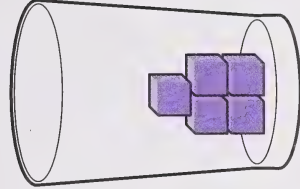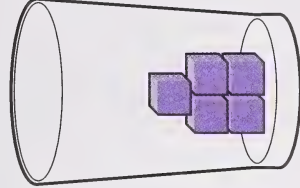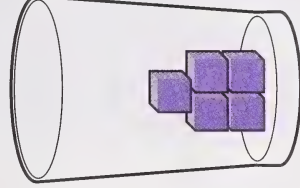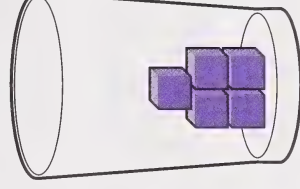
If you said there are four groups with five items in each cup, you are right.

Empty the cups again, and have your home instructor take two more cups away. You should now have two cups. Share the same 20 items equally among the two cups. Then answer the following questions.

How many groups or cups are there?

How many items are in each cup?
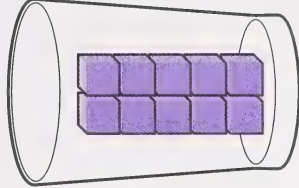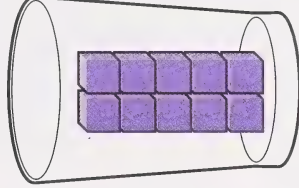
If you said there are two groups with ten items in each cup, you are right.

Sharing Equal Groups

Give the student 8 more cups for a total of 10.

Empty the cups again. Ask your home instructor to give you eight more cups. You should now have ten cups. Share the same twenty items equally among the ten cups. Then answer the following questions.

How many groups or cups are there? ⬜

How many items are in each cup? ⬜

If you said there are ten groups with two items in each cup, you are right.
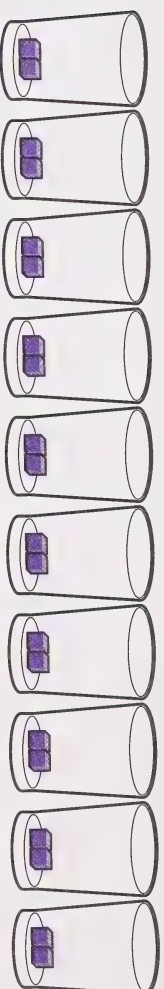
How many different ways did you share those 20 items? ⬜

Yes, you shared the 20 items 4 different ways.

Sharing Equal Groups

Share 16 items equally among 2 cups. Then draw the 2 cups with the right number of items in each.

How many groups or cups are there?

How many items are in each cup?

If you answered there are two groups with eight items in each, you are right.
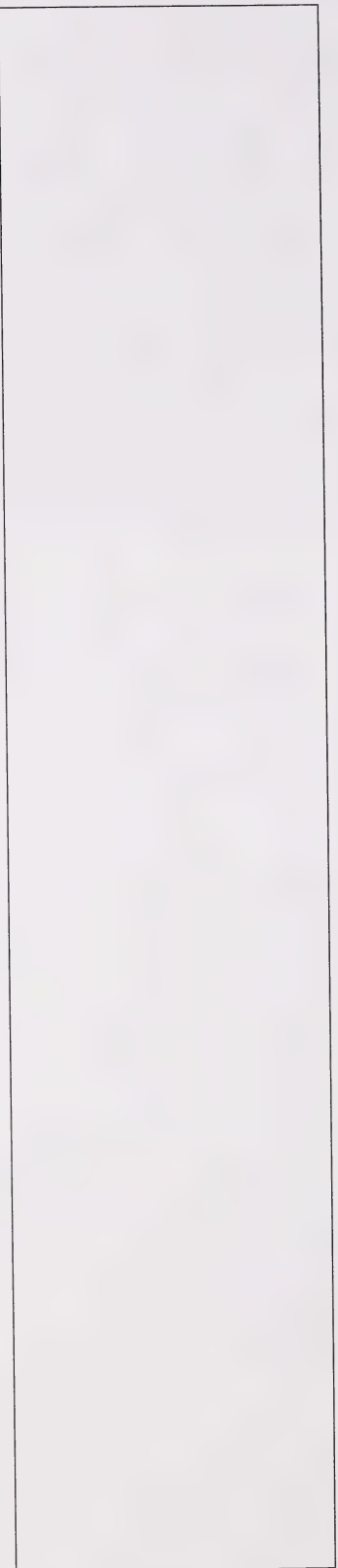
Share 16 items equally among 4 cups. Then draw the 4 cups with the right number of items in each.

How many groups or cups are there?

How many items are in each cup?

If you answered there are four groups with four items in each, you are right.

Sharing Equal Groups

Share 16 items equally among 8 cups. Then draw the 8 cups with the right number of items in each.

How many groups or cups are there? ☐

How many items are in each cup? ☐

If you said there are eight groups with two items in each, you are right.

Sharing Equal Groups

Draw pictures for each of these, then fill in the blank. The first one is done for you.

1. Share 8 apples on 2 trees.
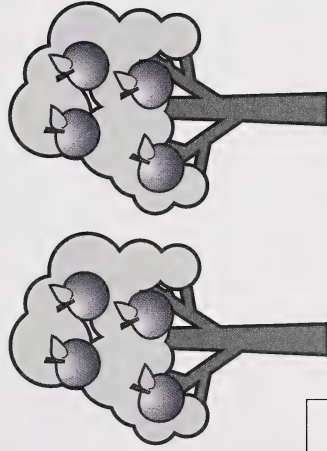
There are [4] apples on each tree.

2. Share 12 pancakes on 4 plates.
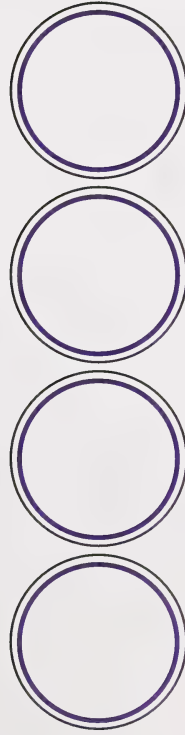
There are [ ] pancakes on each plate.

3. Share 9 candles on 3 cakes.

There are [ ] candles on each cake.

4. Share 14 flowers in 2 vases.
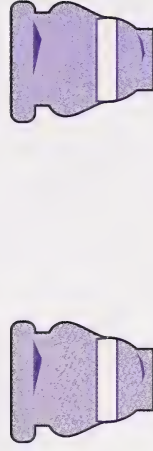
There are [ ] flowers in each vase.

Day 13: Share Some More

You can solve many problems when you know how to share things equally. Making groups equal is the secret. You can use many different ways to make groups that have equal items.

Can you imagine how an egg carton might be helpful for making equal groups? Just go on to share some more.

Share Some More

Lesson 1

Elena's friend Sumi planted tomatoes in the garden last summer. She made tomato sauce out of the extra tomatoes. Elena asked Sumi how many tomato plants she grew last summer. Sumi told Elena that she had 30 tomato plants in all. She planted them in 6 rows. Elena wondered how many tomato plants were in each row. Do you know?
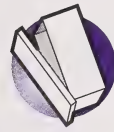
Select a manipulative from your Math Box.

Count out 30 of your manipulative. What should you do now? Tell your home instructor.

Right. Make six rows with your markers. Begin by putting one marker in each row. Keep adding markers one by one to each row until you use all 30. When you finish, draw a picture of the rows. It has been started for you.

Guide the student to make 6 rows. He or she can begin by putting a marker in each row, one at a time, until all 30 counters are used.

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How many rows are there?

[ ]
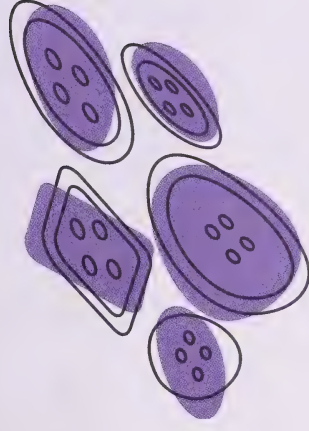
How many are in each row?

[ ]

If you said six rows with five in each, you are right.

Sumi planted 30 tomato plants. There were six rows, with five tomato plants in each row.

Day 13
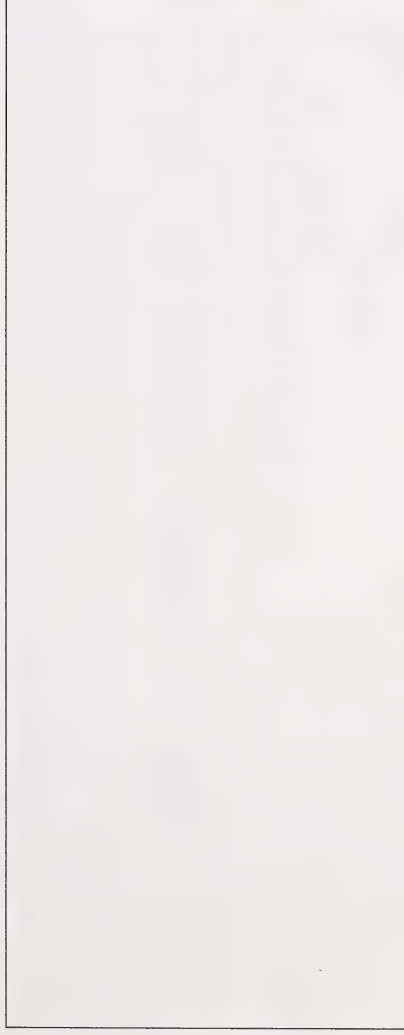
If Sumi had planted the 30 tomato plants in five rows, how many

tomato plants would be in each row?

With your markers, show how many tomato plants there would be in five rows. Then draw the rows in the box.

How many rows are there?

How many are in each row?

If you said five rows with six in each, you are right.

Have the student make 6 rows with the counters; then have them add the counters, one by one, to each row until all 30 counters are used up.

The student should draw six rows of five tomatoes each.

Lesson 2

Take out the egg carton from your Math Box.

Count out 18 of the manipulative you were just using. They can be beans, coins, cubes, or pasta.
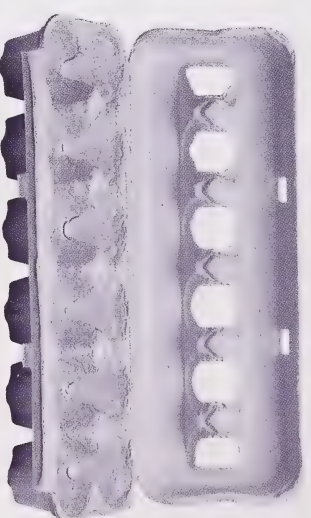
Make equal groups of two and put them into the egg carton compartments.

How many compartments did you fill? ☐ Did you say nine? Circle **Yes** or **No**.

If you said yes, you are right.

Now make equal groups of three and put them into the compartments of the egg carton.

How many compartments did you fill? ☐ Did you say six? Circle **Yes** or **No**.

If you said yes, you are right.

Make equal groups of six and put them into the compartments of the egg carton.

How many compartments did you fill?

Did you say three? Circle **yes** or **no**.

If you said yes, you are right.

Make equal groups of nine and put them into the compartments of the egg carton.

How many compartments did you fill?

Did you say two? Circle **yes** or **no**.

If you said yes, you are right.

Count out 24 beans, coins, cubes, or pasta.

Make equal groups of two and put them into the compartments of the egg carton.

How many compartments did you fill?

Did you say twelve? Circle **yes** or **no**.

If you said yes, you are right.

Now make equal groups of three and put them into the compartments of the egg carton.

How many compartments did you fill? ⬜ Did you say eight? Circle **yes** or **no**.

If you said yes, you are right.

Make equal groups of four and put them into the compartments of the egg carton.

How many compartments did you fill? ⬜ Did you say six? Circle **yes** or **no**.

If you said yes, you are right.

Make equal groups of six and put them into the the compartments of the egg carton.

How many compartments did you fill? ⬜ Did you say four? Circle **yes** or **no**.

If you said yes, you are right.

Make equal groups of eight and put them into the compartments of the egg carton.

How many compartments did you fill? ⬜ Did you say three? Circle **yes** or **no**.

If you said yes, you are right.

Share Some More

Make equal groups of twelve and put them into the compartments of the egg carton.

How many compartments did you fill? [ ] Did you say two? Circle **yes** or **no**.

If you said yes, you are right.

Lesson 3

You can solve problems when you know how to share equally. Try to solve these. Use counters to help you, and draw a picture for each one.

1. Jasper has 15 marbles. He wants to give them away to his friends. How can he share them equally among his three friends?

Jasper gave [ ] marbles to each of his three friends.

Share Some More

2. Sol shared 16 cookies with four friends. How many cookies did each friend get?

Each friend got [ ] cookies.

3. Jamie planted 21 seeds in three pots. How many seeds were planted in each pot?

Jamie planted [ ] seeds in each pot.

4. Elena bought 10 flowers for her mother. Her mother put the flowers into two vases. How many flowers were in each vase?

There were ☐ flowers in each vase.

For more practice sharing equal groups, go to the Extension Activities.
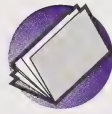
Go to Assignment Booklet 7B.

Day 14: What Do You Remember?

It's been a long while since you did Module 1. Module 1 was about numbers and looking at numbers in new ways. For example, you learned to sort numbers from largest to smallest.

You even learned how to write numbers using words. Do you remember what even and odd numbers are?

This is your chance to see what you remember.

What Do You Remember?

This is a review of what you learned in Module 1. See how much you remember.

1. Write in the missing numbers.

a. 61, 62, ☐ , ☐ , 65

b. ☐ , ☐ , 41, 42, 43

c. 86, ☐ , ☐ , ☐ , 91

2. Write the numbers in order, from smallest to largest.

a. 47, 28, 61, 52

☐ , ☐ , ☐ , ☐

b. 33, 84, 19, 75

☐ , ☐ , ☐ , ☐

3. a. Write the number that comes before.

41 [ ]

[ ] 70

[ ] 100

b. Write the number that comes between.

66 [ ] 68

89 [ ] 91

27 [ ] 29

c. Write the number that comes after.

29 [ ]

50 [ ]

32 [ ]

4. Circle the number that is greater in each block.

a. 44 55

b. 13 22

c. 97 79

d. 19 91

e. 56 57

f. 73 64

What Do You Remember?

5. Circle the number on each block that is fewer.

a.
| 14 | 15 |

b.
| 37 | 46 |

c.
| 92 | 90 |

d.
| 67 | 68 |

e.
| 29 | 30 |

f.
| 75 | 74 |

6. a. Circle the greatest number.

| 14 | 22 | 19 | 13 |

b. Circle the number that is one more than 78.

| 80 | 79 | 81 | 77 |

c. Circle the least number.

| 39 | 16 | 21 | 15 |

d. Circle the number that is one less than 62.

| 60 | 61 | 59 | 63 |

e. Circle the numbers that are less than 45.

| 44 | 37 | 81 | 46 |

f. Circle the numbers that are greater than 91.

| 93 | 89 | 90 | 95 |

7. Match the numbers with the number words.

14	16	20	13	17	12	18	15	11	19

twelve	eleven	nineteen	eighteen	thirteen	fifteen	sixteen	fourteen	seventeen	twenty

What Do You Remember?

Take your crayons out of your Math Box

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

8. Look at the circles above. You'll be counting and colouring them in different ways.

a. Colour the fourth and twentieth circles red.

b. Put an X on the sixteenth and ninth circles.

c. Colour the second circle and the thirty-first circle green.

d. Colour the nineteenth and twenty-fifth circles blue.

e. Put a triangle around the twelfth and third circles.

f. Put a box around the tenth circle.

g. Colour the first and twenty-eighth circles orange.

9. Enter the following numbers on your calculator. Then print the numbers under the number word.

a. nine

☐

b. eleven

☐

c. five

☐

d. thirteen

☐

e. thirty

☐

f. twenty

☐

g. thirty-one

☐

h. twenty-four

☐

i. seventeen

☐

j. twenty-three

☐

10. Colour the even numbers yellow, and the odd numbers purple.

a. 64 b. 72 c. 91 d. 37 e. 43 f. 26 g. 58 h. 19 i. 70 j. 100 k. 85 l. 62 m. 90 n. 41 o. 23

11. a. How do you know the yellow numbers are even?

_____

_____

b. How do you know the purple numbers are odd?

_____

_____

12.

□ □ □ □ △ △ △ △ △ △

a. Colour three squares red.
b. Colour one square blue.
c. Colour four triangles red.
d. Colour two triangles blue.
e. Sort the shapes into two groups. Draw each group in a circle.
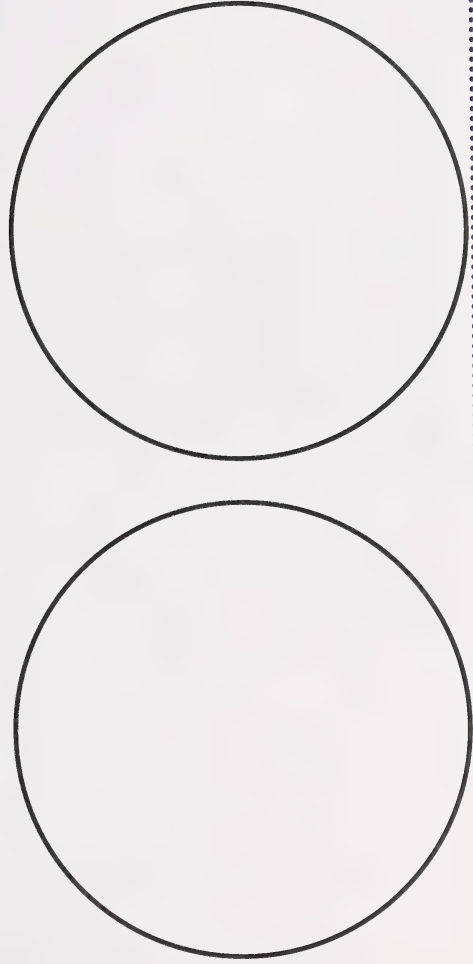
f. What is your sorting rule?

_____

_____

g. Now find a different way to share the shapes between the two circles.

( )   ( )
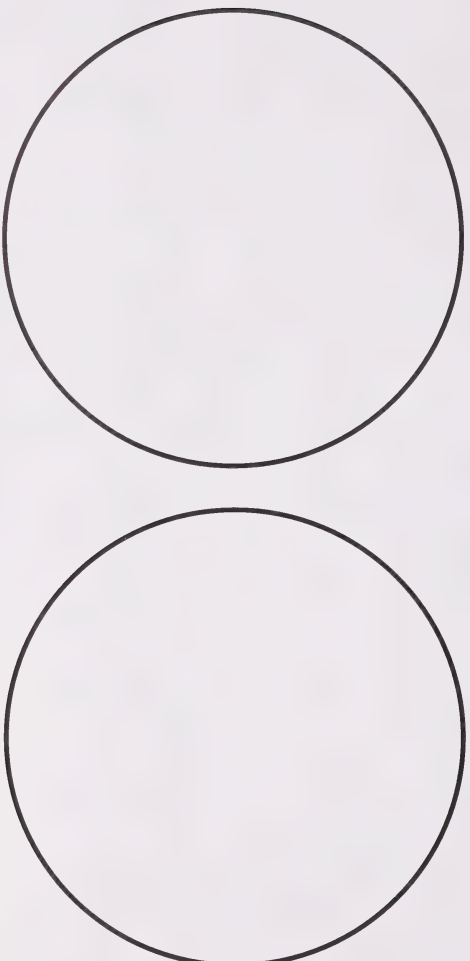
h. What is your new sorting rule?

_____

_____

Day 15: What Do You Remember?

It is always very useful to review the skills you have learned. In Module 2 you learned different ways to manage bigger numbers.

For example, do you remember how to make estimates when there are large numbers of items? Sometimes when you are working with large numbers, rounding is also useful. Can you remember how to round numbers?

These are some of the skills you will review today.

This is a review of what you learned in Module 2. See how much you remember.

1. a. Estimate the number of moons in the box.

   ☐ moons

   b. Circle the tens. How many tens and ones are there?
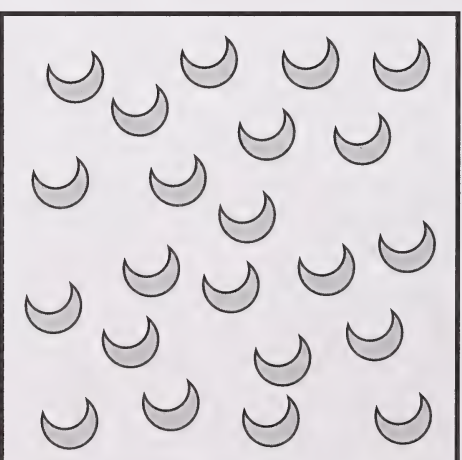
   ☐ tens   ☐ ones

   c. The actual number is ☐ moons.

   d. Is this greater or fewer than your estimate?

   _____

2. a. Estimate the number of stars in the box.

stars

b. Circle the tens. How many tens and ones are there?

tens ones

c. The actual number is stars.

d. Is this greater or fewer than your estimate?

_____
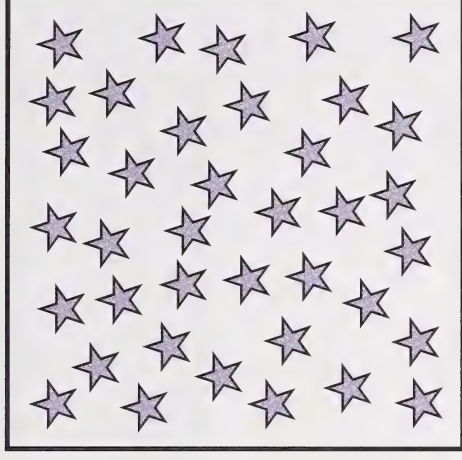
3. Draw rods and cubes in the box to show 53.

4. Count and print the numbers for each.
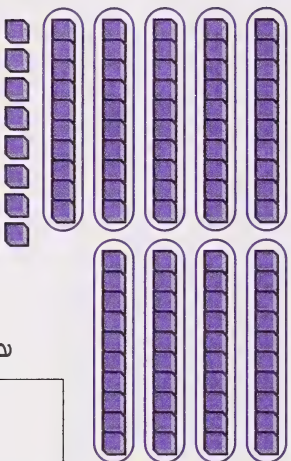
a.

tens ☐ ones ☐

b. What is the number? ☐

c.
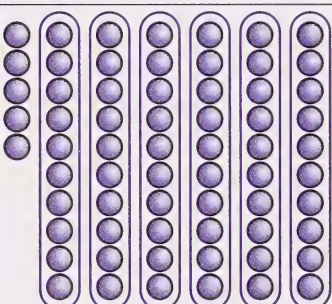
tens ☐ ones ☐

d. What is the number? ☐

What Do You Remember?

5. Print the number shown. You'll draw the same number using fewer rods and more blocks. Then you'll draw it again using fewer blocks and more rods.

a. The number is [ ].	The Same Number with Fewer Rods and More Blocks	The Same Number with Fewer Blocks and More Rods
b. [ ] tens [ ] ones	c. [ ] tens [ ] ones	d. [ ] tens [ ] ones

e. The number is [ ].	The Same Number with Fewer Rods and More Blocks	The Same Number with Fewer Blocks and More Rods
f. [ ] tens [ ] ones	g. [ ] tens [ ] ones	h. [ ] tens [ ] ones

6. Round the numbers to the nearest ten.

Number	Round To
a. 16	
b. 42	
c. 87	
d. 33	
e. 91	

Number	Round To
f. 9	
g. 64	
h. 56	
i. 25	
j. 18	

k. What is the rule for rounding?

_____

_____

l. What is the rounding rule for a number that has a 5 in the ones place?

_____

_____

7. a. Circle in red the numbers that can be rounded to 60.

51	62	59	65	52
50	61	67	68	53
56	58	69	66	55
63	54	57	64	70

b. Circle in green the numbers that can be rounded to 90.

89	97	91	84	99
96	85	80	93	98
94	88	82	87	81
92	95	86	83	100

60   65   70   75   80
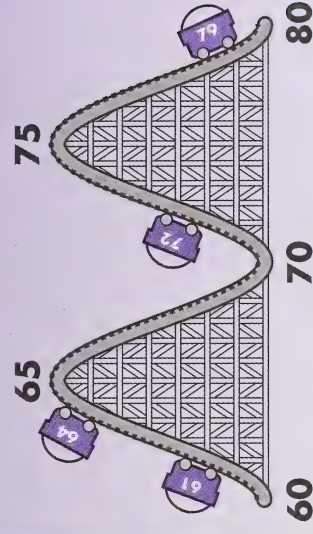
8. Show the number below using tens and ones. Use manipulatives to help you. Then draw the set in the box.

a. 74

b. Show the number on the place-value chart. Then fill in the blanks.

Tens	Ones

c. ☐ tens ☐ ones
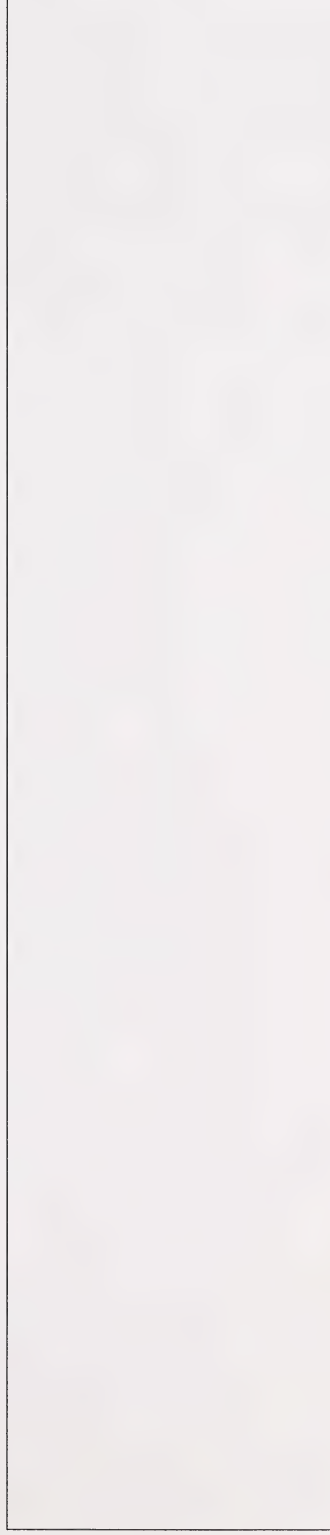
d. What is the number?

e. What does the 7 stand for? _____

f. What does the 4 stand for? _____

9. Show the number below using tens and ones. Use manipulatives to help you. Then draw the set in the box.

a. 32

b. Show the number on the place-value chart. Then fill in the blanks.

Tens	Ones

c. ☐ tens ☐ ones
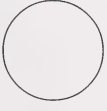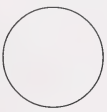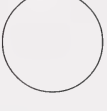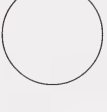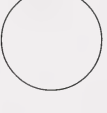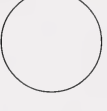
d. What is the number? ☐

e. What does the 3 stand for? _____

f. What does the 2 stand for? _____

What Do You Remember?

10. a. Print the number of each card in the box below it. Then order the numbers from least to greatest in the circles.

87	ten fewer than 16	ten more than 70	thirty-one	81	seven

○	○	○	○	○	○	○

b. Print the number of each card in the box below it. Then order the numbers from greatest to least in the circles.

| thirteen | | 63 | nineteen | ten fewer than 42 | 59 | ten more than 90 |

Day 16: What Do You Remember?

Adding and subtracting are used to solve many problems each day. In Module 3 you practised different ways to do addition and subtraction. You have been getting better and faster at figuring out all sorts of problems.

It's interesting to try different methods to solve addition and subtraction problems. That way you can choose what works best for you.

Turn the page to see what you remember about these different methods.

What Do You Remember?

1. Solve these addition problems.

a. 9+2= ☐

b. 8+3= ☐

c. 5
   +5
   ___

d. 0
   +2
   ___

e. 10+0= ☐

f. 5+4= ☐

g. 10
   +1
   ___

h. 7
   +4
   ___

i. 3+3= ☐

j. 6+4= ☐

k. 8
   +3
   ___

l. 2
   +7
   ___

m. 4+4= ☐

n. 3+4= ☐

o. 1
   +6
   ___

What Do You Remember?

2. Fill in the missing numbers.

a. $3 + \boxed{} = 9$

b. $6 + \boxed{} = 8$

c. $\boxed{} + 5 = 5$

d. $\boxed{} + 1 = 7$

3. Figure out the rule and print it. Fill in the missing numbers. The first one is started for you.

a. Rule: Add 2

Input	Output
4	6
3	
5	

b. Rule:

Input	Output
5	9
7	
6	

c. Rule:

Input	Output
3	10
5	
2	

4. Solve these equations.

a. 9 − 3 = ☐

e. 11 − 4 = ☐

i. 5 − 2 = ☐

m. 8 − 7 = ☐

b. 3 − 3 = ☐

f. 6 − 5 = ☐

j. 10 − 1 = ☐

n. 10 − 10 = ☐

c. 7
  − 4
  ___

g. 2
  − 1
  ___

k. 7
  − 2
  ___

o. 6
  − 3
  ___

d. 8
  − 4
  ___

h. 9
  − 3
  ___

l. 11
  − 1
  ___

5. Fill in the missing numbers.

a. 10 − ☐ = 3

b. 6 − ☐ = 0

c. ☐ − 7 = 3

d. ☐ − 1 = 7

What Do You Remember?

6. Figure out the rule. Then print it and fill in the missing numbers. The first one is started for you.

a.

Rule: Subtract 3	
Input	**Output**
7	4
11	
3	

b.

Rule:	
Input	**Output**
10	6
5	
8	

c.

Rule:	
Input	**Output**
11	3
9	
10	

7. Write the number sentence and answer for each problem.

a. Joseph is baking some cupcakes. The cupcakes take twelve minutes to bake. They have been in the oven for eight minutes. How much longer do they have to be in the oven?

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

The cupcakes have to be in the oven ☐ minutes longer.

b. Elena's mother swims four kilometres every day. Today she swam six kilometres. How many more kilometres did she swim today?

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

Elena's mother swam ☐ more kilometres today.

c. Lorna's brother gave her nine pears. He also gave her three apples. How many pears and apples does Lorna have in all?

Lorna has ☐ pears and apples in all.
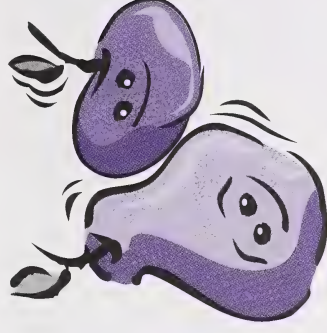
d. Jasper has eight hockey cards. He gave his best friend five of them. How many hockey cards does Jasper have left?

Jasper has ☐ hockey cards left.

8. Make four number sentences (two addition ones and two subtraction ones) for each group of numbers.

a.

5	4	9			

c.

3	4	7			

b.

11	7	4			
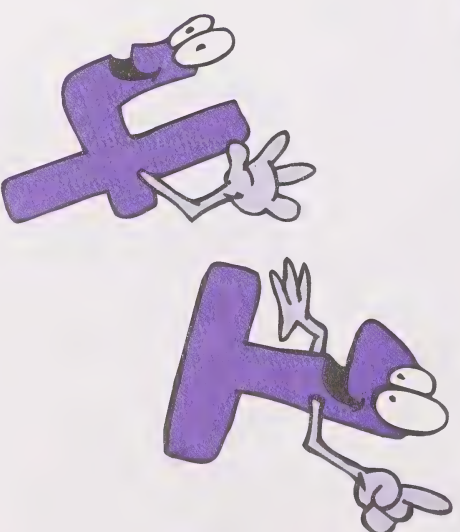
9. Show how you add and subtract these numbers using doubles. The first one is done for you.

a. $6 + 7 =$ ☐

$$6 + 6 + 1 = 13$$

b. $8 + 9 =$ ☐

c. $10 + 9 =$ ☐

d. $16 - 8 =$ ☐

e. $14-7=$ ☐

f. $20-10=$ ☐

10. Use the number line to add and subtract.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

a. $14-5=$ ☐

b. $18-2=$ ☐

c. $12+6=$ ☐

d. $16+4=$ ☐

e. $13-4=$ ☐

f. $8+9=$ ☐

g. $16-9=$ ☐

h. $17-14=$ ☐

What Do You Remember?

11. Subtract by counting on.

a. $17 - 15 =$ ☐   b. $18 - 15 =$ ☐   c. $13 - 11 =$ ☐   d. $8 - 5 =$ ☐

12. Subtract by counting back.

a. $16 - 3 =$ ☐   b. $20 - 2 =$ ☐   c. $11 - 1 =$ ☐   d. $15 - 2 =$ ☐

13. Add these numbers.

a. $\begin{array}{r} 50 \\ +\ 9 \\ \hline \end{array}$

b. $\begin{array}{r} 77 \\ +\ 2 \\ \hline \end{array}$

c. $\begin{array}{r} 96 \\ +\ 3 \\ \hline \end{array}$

d. $\begin{array}{r} 85 \\ +11 \\ \hline \end{array}$

e. $\begin{array}{r} 70 \\ +26 \\ \hline \end{array}$

f. $\begin{array}{r} 43 \\ +32 \\ \hline \end{array}$

14. Subtract these numbers.

a. 83
   -1

c. 74
   -3

e. 93
   -70

b. 93
   -2

d. 36
   -15

f. 68
   -58

15. Solve the problems.

a. Mandy has 32 pictures in her album. Her brother has 57 pictures in his album. How many pictures do they have in all? Write the number sentence.

[ ]

Mandy and her brother have [ ] pictures in all.

b. Elena has 68 cents in her piggy bank. That is 53 cents more than Jasper has in his piggy bank. How much money does Jasper have in his piggy bank? Write the number sentence.

Jasper has ☐ cents in his piggy bank.

16. Look at the numbers that Geri has to add.

$35 + 19$

Geri does her arithmetic by imagining that she should add 10, then another 10, and then take one away. This is what the numbers would look like.

$35 + 10 + 10 - 1$

a. Explain what Geri means. _____

_____

b. What is the sum of $35 + 19$?

Use Geri's method to solve these problems. Show your work.

c. $42 + 39$

=

d. $88 - 59$

=

17. Estimate to get approximate answers. Show your work.

a. $62 + 23$

= about

b. $91 - 47$

= about

If necessary, guide the student to round 62 to 60 and 23 to 20.

Guide the student to round 91 to 90 and 47 to 50.

What Do You Remember?

18. Carmen's father gave her 98¢ to buy some milk. The milk costs 72¢. About how much money would Carmen have left after she bought the milk?

a. Write down the number sentence.

☐ = about ☐

b. Explain how you estimated your answer.

_____

_____

Day 17: What Do You Remember?

This is the day you will recall all sorts of shapes. You know many words to describe 2-D shapes and 3-D solids.

By the way, do you remember what the difference is between 2-D and 3-D? what faces, edges, and vertices are?

Skeletal models can be a challenge, even tasty ones made of marshmallows. Do you remember how you did that?
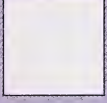
It's time to see how much you remember about geometric shapes and solids.

What Do You Remember?
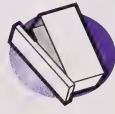
Take out the 2-D geometry shapes from your Math Box

1. Use your 2-D geometry shapes to help you complete this chart. Put your answers on the lines.

Shape	What is the name of this shape?	How many sides does it have?	How many corners does it have?
a. ◁	_____	☐ sides	☐ corners
b. ■	_____	☐ sides	☐ corners
c. ▮	_____	☐ sides	☐ corners
d. ●	_____	☐ sides	☐ corners

2. Put an X on the pictures that are folded into two congruent shapes.
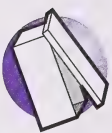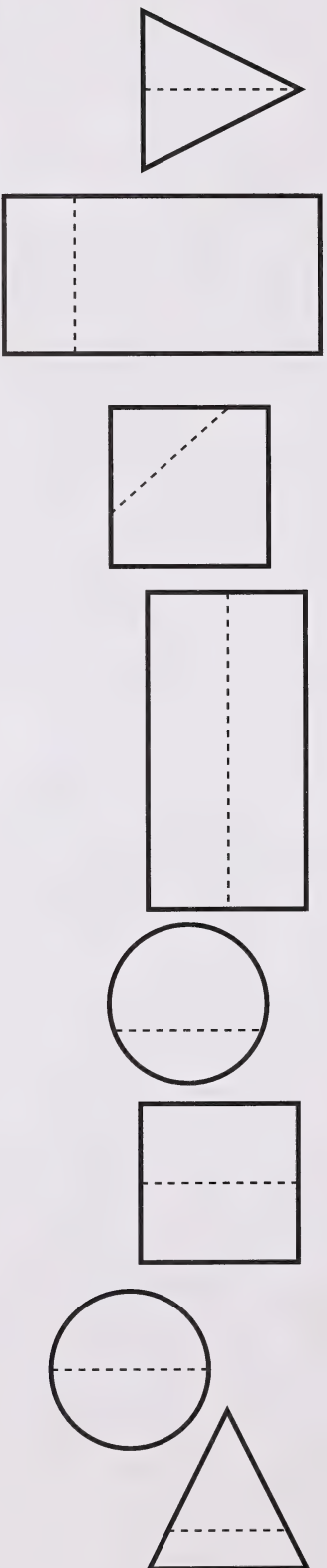
Take out the 3-D solids from your Math Box.

3. Draw a line to match each solid to its name.

pyramid	sphere	cylinder	cube

4. Draw a picture of something that is the same shape. Then write what it is on the line.

Solid	Object of the Same Shape	Name of the Object
a.		_____
b.		_____
c.		_____
d.		_____
e.		_____
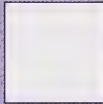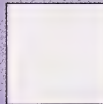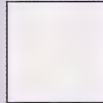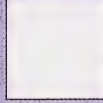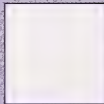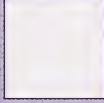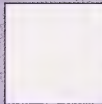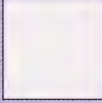
5. Write the names of the 3-D solids to answer the question.

a. This solid has all square faces. _____

b. This solid has no faces. _____

c. This solid is shaped like a pop can. _____

d. This solid has only one face. _____

e. This solid has one square face. _____

What Do You Remember?

6. First, name the solid. Then print the number of faces, edges, and vertices each has.

Solid	Name	Number of Faces	Number of Edges	Number of Vertices
a.				
b.				
c.				
d.				
e.				

7. How many sticks and marshmallows would you need to make these skeletal models? Print your answer in the box.

a.
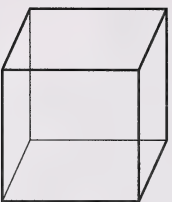
sticks	marshmallows

b.
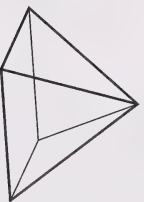
sticks	marshmallows

8. How are the solid object and the skeletal model the same?

_____

_____

_____

What Do You Remember?
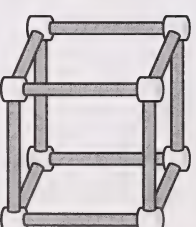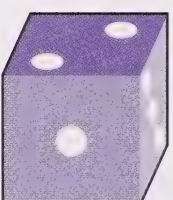
9. How are the solid object and the skeletal model different?

_____

_____

_____

10. Why can't you use sticks and marshmallows to make a sphere?

_____

_____

_____

Day 18: What Do I Know Now?

You have now completed a review of the first four modules of Mathematics Two. It's time to ask, "What do I know about the work in this module?"

In this module you practised using numbers to 1000. Do you remember how to count by 2s, 5s, 10s, and 25s? Which way is the quickest way to count to 100? This is also a way to use groups to help solve problems.

What can you remember about sharing equal groups? If you had eight toys to share with two of your friends, how many toys would you each get? How could you solve this problem?

It's time to find out what you know now.

What Do I Know Now?

This is a review of what you learned in this module. See how much you remember!

1. Look at these numbers. Fill in the place-value charts. Then write the number in the box.
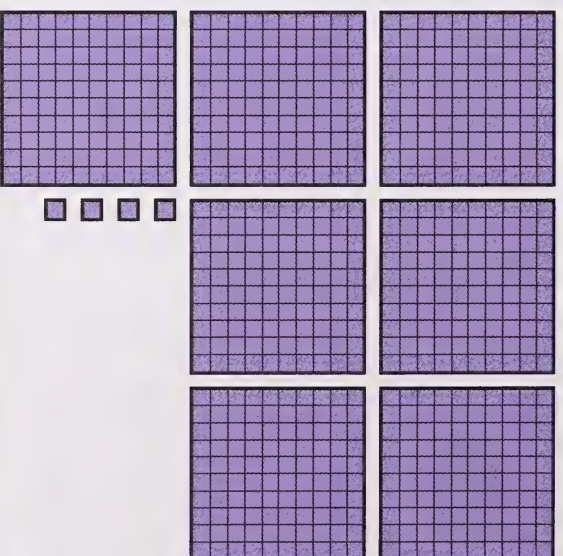
a.
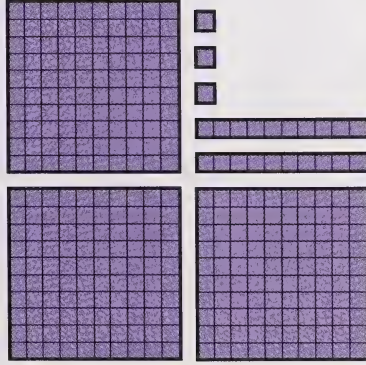
Hundreds	Tens	Ones

b.

Hundreds	Tens	Ones

What Do I Know Now?
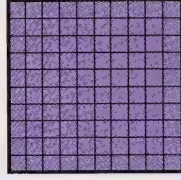
c.
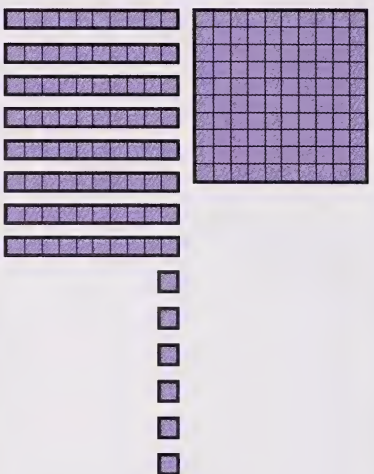
Hundreds	Tens	Ones

d.

Hundreds	Tens	Ones

What Do I Know Now?

e.
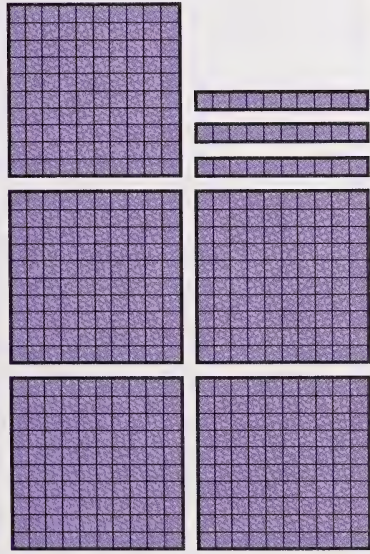
Hundreds	Tens	Ones

f.
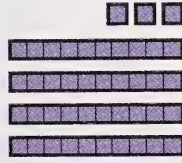
Hundreds	Tens	Ones

2. Count by ones. Print the numbers that follow in the boxes.

a. 135, [ ], [ ], [ ], [ ]

b. 268, [ ], [ ], [ ], [ ]

c. 940, [ ], [ ], [ ], [ ]

d. 577, [ ], [ ], [ ], [ ]

3. Count by twos. Print the numbers that follow in the boxes.

a. 622, [ ], [ ], [ ], [ ]

b. 796, [ ], [ ], [ ], [ ]

c. 360, [ ], [ ], [ ], [ ]

d. 444, [ ], [ ], [ ], [ ]

4. Count by fives. Print the numbers that follow in the boxes.

a. 775, [ ] , [ ] , [ ] , [ ] , [ ]

c. 800, [ ] , [ ] , [ ] , [ ] , [ ]

b. 230, [ ] , [ ] , [ ] , [ ] , [ ]

d. 185, [ ] , [ ] , [ ] , [ ] , [ ]

5. Count by tens. Print the numbers that follow in the boxes.

a. 410, [ ] , [ ] , [ ] , [ ] , [ ]

c. 790, [ ] , [ ] , [ ] , [ ] , [ ]

b. 230, [ ] , [ ] , [ ] , [ ] , [ ]

d. 950, [ ] , [ ] , [ ] , [ ] , [ ]

6. Count by 25s. Fill in the missing numbers.

a. ☐ , 75,

b. 50, ☐ , ☐

c. 25, ☐ , ☐ , ☐

d. ☐ , ☐ , 100

7. Count the quarters and print the value of each.

a.

☐ ¢

b.

☐ ¢

c.

☐ ¢

d.

☐ ¢

What Do I Know Now?
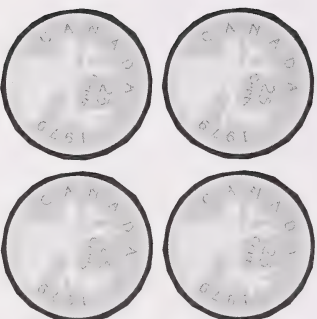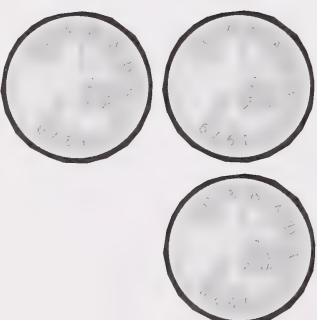
8. Draw any objects you want to show the following groups, and fill in the boxes.

a. 6 groups of 2 = ☐

b. 4 groups of 4 = ☐

c. 5 groups of 5 = ☐

d. 3 groups of 3 = ☐

9. Draw the picture for each box and solve the problem.

a. There are four whitefish in the bucket.

How many eyes are there in all? ☐

c. Cara has three cats.

How many legs are there in all? ☐

b. There are five muffins in each package. There are three packages.

How many muffins are there in all? ☐

d. Nancy has six nickels.

How many cents does she have in all? ☐

What Do I Know Now?

10. Finish the picture for each one and print the answer in the box.

a. Share 16 seeds on 4 buns.
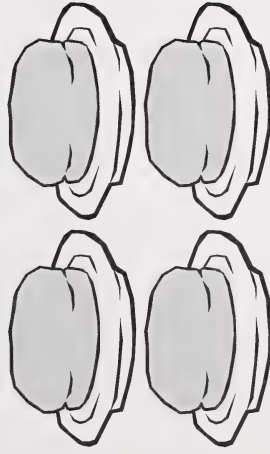
There are ☐ seeds on each bun.

b. Share 12 leaves on 2 flags.
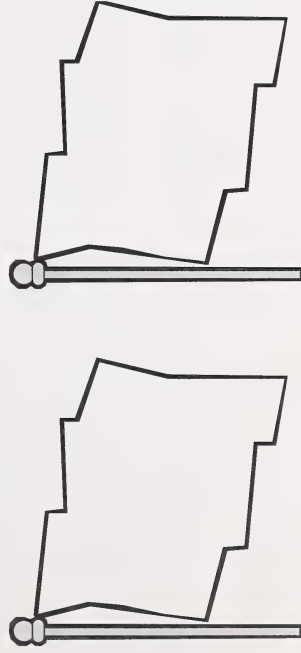
There are ☐ leaves on each flag.

c. Share 21 cookies on 7 plates.
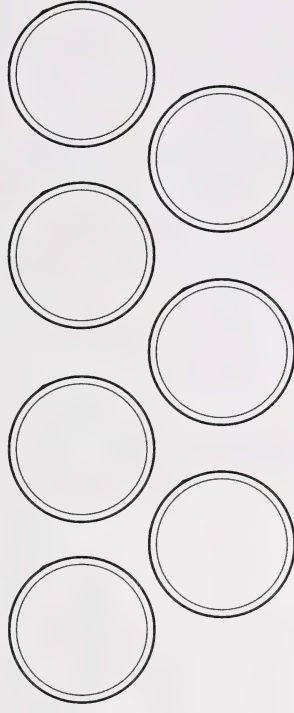
There are ☐ cookies on each plate.

d. Share 15 apples on 3 trees.

There are ☐ apples on each tree.

11. Draw a picture for each problem. Write the answer in the box.

a. Gabbie brought 24 candies to share between six people. She put the candies on plates. How many candies did each person get?

b. There are 9 wheels in total on the tricycles in Sam's backyard. Each tricycle has three wheels. How many tricycles are there?

Each person got [ ] candies.

There are [ ] tricycles.

congratulations!

You have now completed Module 7. These are the things you learned:

- how to count by ones to 1000
- how to count by twos to 1000
- how to count by fives to 1000
- how to count by tens to 1000
- how to count by 25s to 100
- how to make equal groups of objects
- how to share a number of objects equally

You will now be able to work with big numbers more easily.

Extension Activities

## Days 4 to 8

Activity 1

You will need base ten blocks for this activity.

Use the hundreds flats, rods, and cubes to measure small areas. Find out how many base ten blocks it takes to cover the areas. Place the base ten blocks on your desk, books, the top of your TV set, and anything else that you would like to measure. Count the number of blocks you need to cover the area, and print the number in the place-value chart. For example, if it takes two hundreds flats and four rods to cover a book, this is what you would print in the chart.

Area covered	Hundreds	Tens	Ones
book	2	4	0

Extension Activities

Activity 2

Use the cards numbered 0 to 9 from your Student Folder.
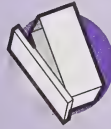
Take your base ten blocks out of your Math Box.

Put the number cards in a pile, and select three cards without looking at them. Make a three-digit number with the cards, and make the same number with the base ten blocks. Then print the number in the box.

Rearrange the same three cards into a new number. Again, make the number with the base ten blocks. Print the number in the chart with the first number.

Rearrange the same cards again and make the number with the base ten blocks. Print the new number in the chart with the other two. You can make three or more different numbers using the same three cards!

Put the number cards back into the pile, and pick three other cards from the pile without looking. Make three new numbers with the new cards, and print the numbers in the box. Keep doing this with more cards.

3-Digit Number	
First	
Second	
Third	

3-Digit Number	
First	
Second	
Third	

3-Digit Number	
First	
Second	
Third	

4 5 9

9 4 5

4 9 5

Extension Activities
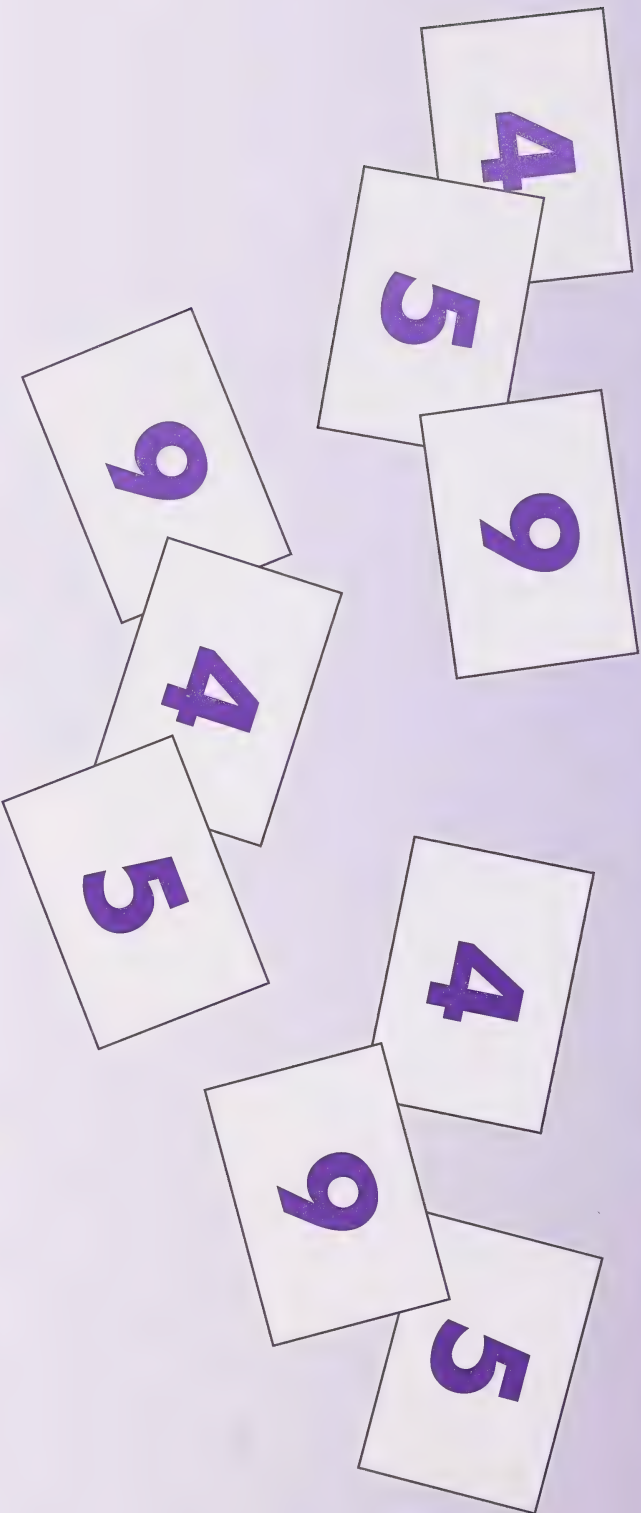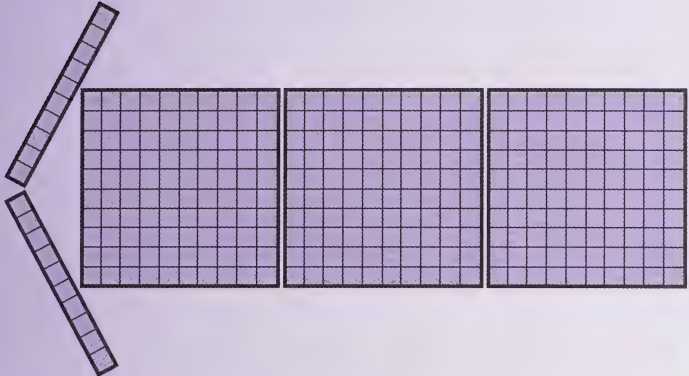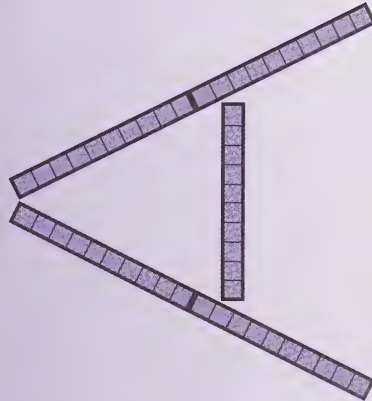
Activity 3

Use your base ten blocks to build a shape. Then print how many blocks were used in the place-value chart. See how many different shapes you can make. Here is an example of one shape——it's a house.

You can also make funny shapes, or you can make your initial, like this.

Shape	Hundreds	Tens	Ones
house	3	2	0
initial	0	5	0

Shape	Hundreds	Tens	Ones

Activity 4

Take your base ten blocks out of your Math Box again.

Take the number spinner that goes from 0 to 9, and two place-value charts for 3-digit numbers.

Do this activity with your home instructor. You will take turns spinning numbers on the spinner and creating 3-digit numbers.

Extension Activities

Spin a number on the spinner. Show that number with your base ten blocks in any column of your place-value chart.

Spin another number and show it on one of the two remaining columns.

Spin a third time and show the number on the last column. You've just created a 3-digit number. Now have your home instructor spin three numbers and place them in each of the columns of a place-value chart. Now you can compare your numbers. Whose number is greater, yours or your home instructor's? Are they both odd or even? Keep playing this game until you make at least ten different 3-digit numbers.

Activity 5

You will need a large sheet of paper for this activity. Think of any number between 100 and 1000. On your paper, show that number in as many ways as possible. You can

- print the number
- write out the number words
- use pictures
- draw base ten blocks
- draw a calculator screen that shows the number

Activity 6

Trading Game
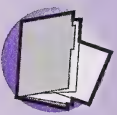
Take your paper play money and two place-value charts out of your Student Folder.
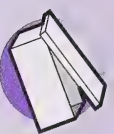
Take a die out of your Math Box.

Play this game with your home instructor.

Each of you will need a place-value chart. Begin by rolling the die and placing that number of one-dollar coins in the ones column of your place-value chart. Then it is your home instructor's turn to roll the die. Once you have ten ones, trade them for a ten-dollar bill and place it in the tens column. When you have ten ten-dollar bills, trade them for a hundred-dollar bill. The player to reach five hundred dollars first is the winner. Or you can set your own limit. For example, you can play until one player reaches four hundred dollars or nine hundred and fifty dollars.

Days 10 and 11

Activity 1

Draw a monster in the box. How many heads will it have? How many tails? eyes? ears? noses? mouths? arms? legs? Once you've drawn your monster, answer the questions.

Extension Activities

If you had two monsters like the one you just drew, how many heads would there be?

How many tails? [ ] How many ears? [ ]

If you had three of your monsters, how many eyes would there be? [ ]

How many arms? [ ] How many mouths? [ ]

If you had four of your monsters, how many noses would there be? [ ]

How many legs? [ ] How many heads? [ ]

Extension Activities

If you had five of your monsters, how many tails would there be? [ ] How many eyes? [ ]

If you had six of your monsters, how many legs would there be? [ ] How many ears? [ ]

If you had seven of your monsters, how many tails would there be? [ ] How many arms? [ ]

If you had eight of your monsters, how many heads would there be? [ ] How many mouths? [ ]

If you had nine of your monsters, how many noses would there be? [ ] How many eyes? [ ]

If you had ten of your monsters, how many legs would there be? [ ] How many ears? [ ]

Extension Activities

Activity 2

Use manipulatives to help you.

1. You're having a party. It is up to you to make the arrangements. There will be six people at the party. Each person will have one piece of cake, three sandwiches, five carrot sticks, six balloons, four celery sticks, and two drinks. How much of each will you need to prepare? Draw pictures to help you.

a. I will need to cut [ ] pieces of cake in all.

b. I will need to make [ ] sandwiches in all.

c. I will need to chop [ ] carrot sticks in all.

d. I will need to blow up [ ] balloons.

e. I will need to chop [ ] celery sticks in all.

f. I will need to pour [ ] drinks in all.

Extension Activities

Activity 3
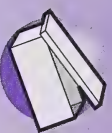
Take a variety of manipulatives out of your Math Box.

Make designs with equal groups of manipulatives that go in different directions.

This design is made up of 4 groups of 3
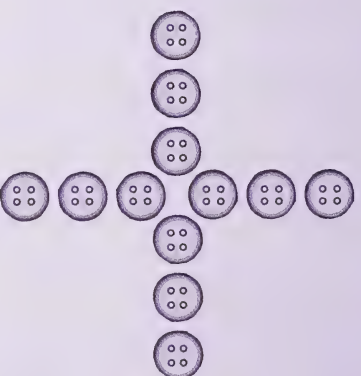
Make your own designs with these groups:

- 5 groups of 2
- 6 groups of 4
- 3 groups of 5

Make as many groups of other numbers as you like. Try to avoid ordinary groups and rows. Be as creative with your disigns as you can.

Extension Activities

Activity 4

Take some drawing paper out of your Student Folder.

1. Farmer Len has four pigs, three chickens, and five cows. Draw his animals. How many legs are there in all?

2. Draw three cars and five bicycles in a parking lot. How many wheels are there in all?

3. Draw five children at a party. How many fingers are there in all?

Days 12 and 13

Activity 1

Making a Pizza

You have to make four pizzas using all of the ingredients shown. Draw the pizzas so that each pizza shares an equal number of each ingredient.
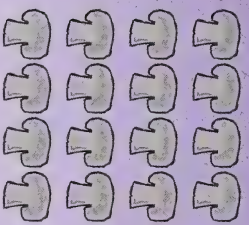
16 mushrooms
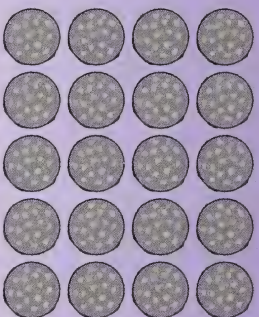
20 pieces of pepperoni
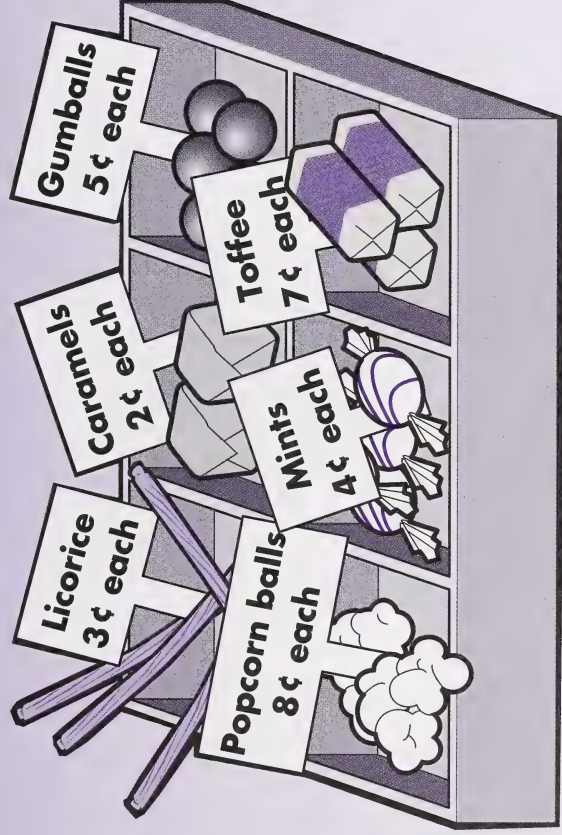
12 olives
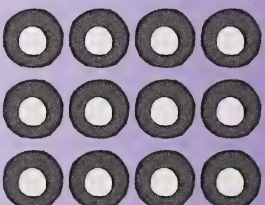
Extension Activities
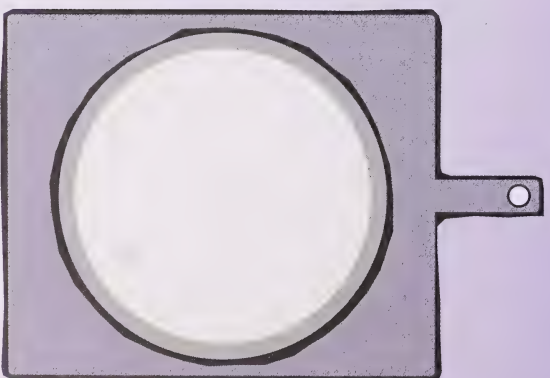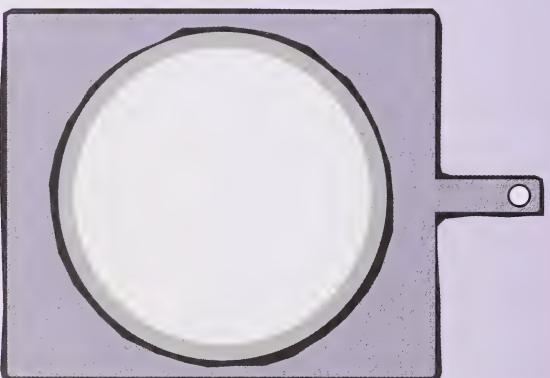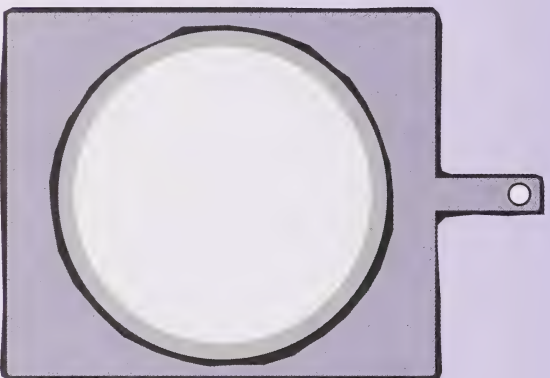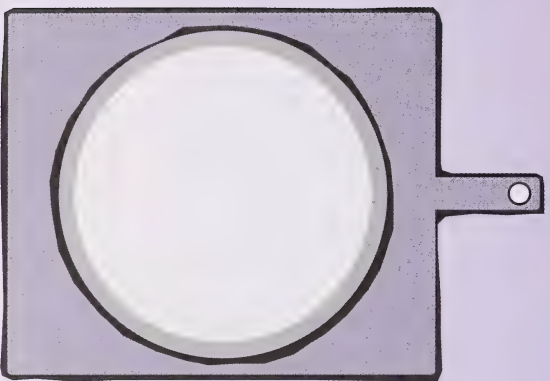
Activity 2

Take 30 pennies of play money out of your Student Folder.

You are going to buy candy with your 30¢. Find out how much of each candy you can buy.

Gumballs
5 ¢ each

Toffee
7 ¢ each

Caramels
2 ¢ each

Mints
4 ¢ each

Licorice
3 ¢ each

Popcorn balls
8 ¢ each

Extension Activities

How many licorice pieces can you buy for 30¢?

How many caramels can you buy for 30¢?

How many gumballs can you buy for 30¢?

How many popcorn balls can you buy for 30¢?

How many mints can you buy for 30¢?

How many toffee pieces can you buy for 30¢?
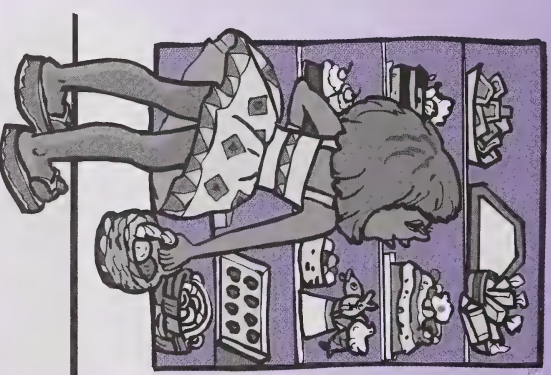
Make your own store. You could sell candy, vegetables, or toys. On a separate piece of paper, draw the items and how much each one costs. Decide how much money you have to spend in all. Then go shopping in your own store!

Appendix

Image Credits
Hundreds Flats
Place-Value Charts
Paper Play Money
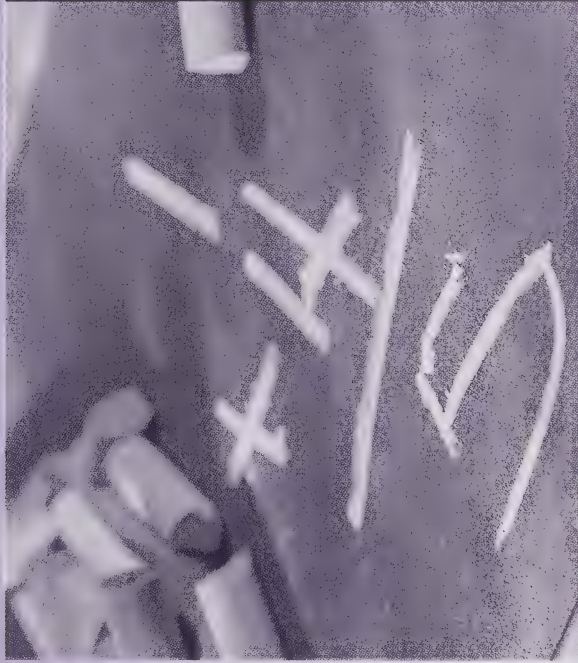
Image Credits
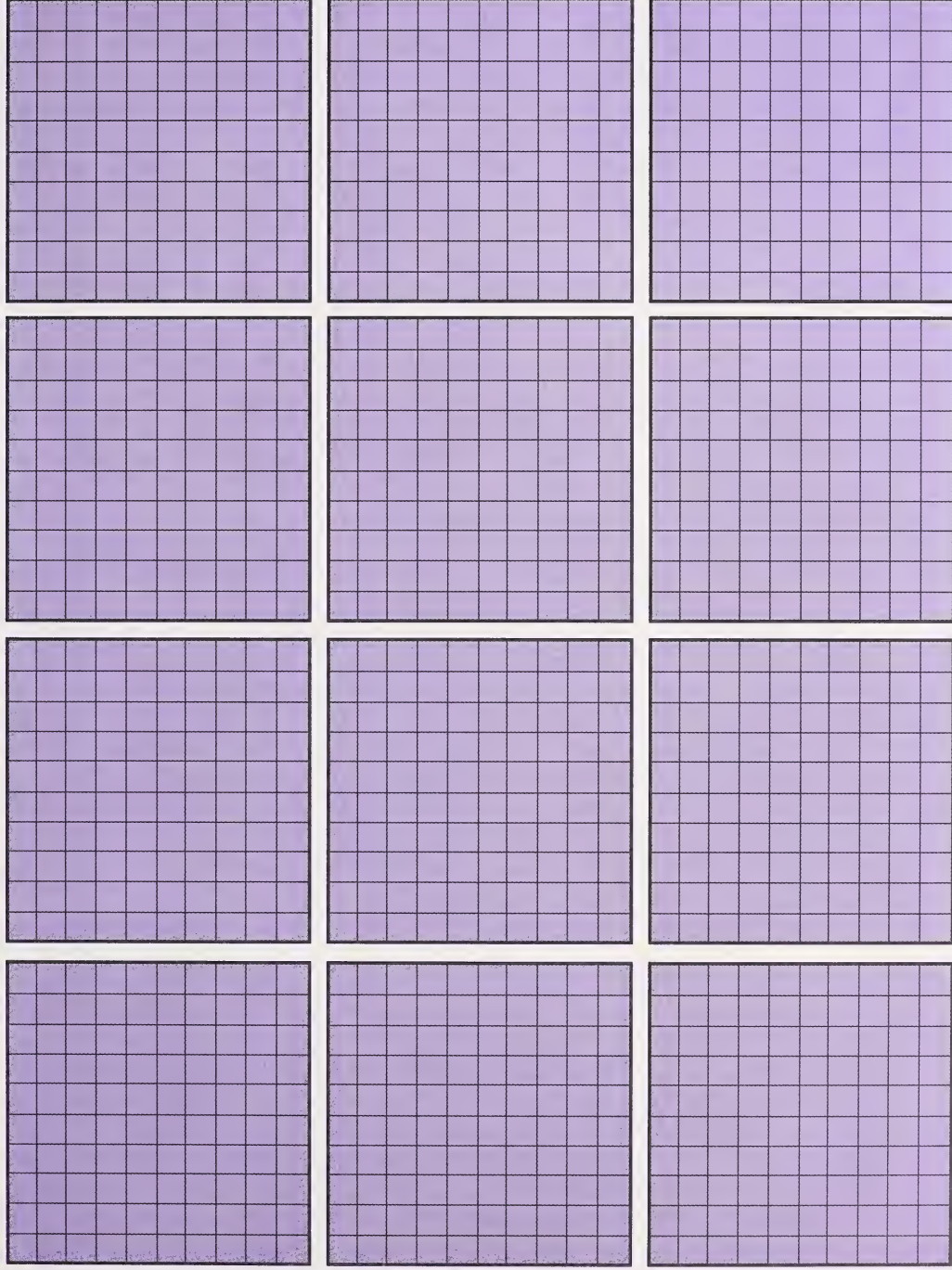
Welcome page: EyeWire Inc.

Hundreds Flats

Place-Value Chart

Hundreds	Tens	Ones

Place-Value Chart

Hundreds	Tens	Ones

Paper Play Money

CANADA
TEN • DIX
DOLLARS
10
10
BANQUE DE L'APPRENTISSAGE • BANK OF LEARNING

CANADA
TEN • DIX
DOLLARS
10
10
BANQUE DE L'APPRENTISSAGE • BANK OF LEARNING

CANADA
TEN • DIX
DOLLARS
10
10
BANQUE DE L'APPRENTISSAGE • BANK OF LEARNING

CANADA
TEN • DIX
DOLLARS
10
10
BANQUE DE L'APPRENTISSAGE • BANK OF LEARNING

Paper Play Money

Paper Play Money

Paper Play Money

Paper Play Money